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RICHARD H. EDMONDS, President.
THOMAS P. GRASTY, Vice-President.
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RICHARD H. EDMONDS,
Editor and General Manager.

THOMAS P. GRASTY,
General Staff Correspondent.

Branch Offices:

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Chicago—505 Fisher Building.

Charleston, W. Va.—ALBERT PHENIS,
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BALTIMORE, MAY 31, 1906.

Bearing on the point made in the MANUFACTURERS' RECORD last week about the value of its advertising columns as a means of information for our readers, and of the care exercised in trying to see that none but reputable and respectable houses appear in its advertising pages, the Mechanical Loading and Trimming Corporation of Norfolk, in a letter mentioning that they have recently written to several of our advertisers, add:

It may not be out of place for us to congratulate you on your paper as a whole, but especially for the class of advertisers who appear to be wide-awake. We have never failed to receive a prompt reply from any of them numbered in your columns, and it was chiefly for this reason that the MANUFACTURERS' RECORD stood first on a long list for subscriptions.

ALABAMA'S NEW ORE FIELD.

In January last the MANUFACTURERS' RECORD published an article about the remarkable discoveries of iron ore in Talladega county, Alabama, where one company has been for several years developing a property which good authorities report as having as a minimum 200,000,000 tons of ore averaging 45 per cent. and better. Other properties in the same field have lately been purchased for development, and in this week's issue we are able to publish a more comprehensive geological report on this new iron field by Mr. John Sharshall Grasty of the Johns Hopkins University, based on investigations which Mr. Grasty has for the last four or five months been carrying on at that point under the general direction of Mr. Charles Catlett, the well-known eco-

nomist geologist of Staunton, Va. The attention which this district is attracting is illustrated in the fact that both the United States Geological Survey and the Alabama Geological Survey are shortly to issue special reports on this iron-ore region. It is believed that the vast quantity of iron ore which has been proven out not only assures to Eastern Alabama a great future as an iron-making section, but at the same time proves a very important factor in taking the place of the steadily-decreasing supply of brown ore, thus proving of great value to the whole State, as it will strengthen the iron and steel-making resources of Alabama. In closing his report Mr. Sharshall Grasty on this point says:

In this way the importance of this new source of ore supply to the iron and steel interest of the South is apparent. More than that, its importance becomes national and international, strengthening, as it does, the position of Alabama as one of the world's main centers of iron and steel production.

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 65, 66 and 67.

BUYING IN CHEAP MARKETS.

In discussing the question as to whether the Panama Canal Commission should confine its purchases of machinery and equipment necessary for the building of the canal to American products or whether it should go abroad for such purchases, Senator Rayner of Maryland in one of his characteristic speeches said:

I have always advocated the doctrine that the people of this country have the right to purchase every article of consumption in the cheapest and most desirable markets of the world, and I must apply to the government the same rule that I apply to its citizens.

Will Senator Rayner advocate with equal energy the right of American manufacturers to purchase labor in "the cheapest markets of the world?" Will he introduce a bill giving to American manufacturers the right to contract in the cheapest labor markets of the world for the cheapest labor that can be had, with the right of importation and the right to use such labor in this country? When he takes this stand and wins out on it, then it may be time enough to talk about "the right to purchase every article of consumption in the cheapest markets of the world." It is the boast of the American people that labor is better paid in this country than elsewhere in the world, and this is something of which every lover of humanity may justly boast. And because of this higher pay for American labor, American manufactured products very generally must, of necessity, cost something more than the same goods in countries that boast of being the cheapest labor markets in the world. If we want to be a cheap people, let us start cheap with cheap labor, and China being possibly the cheapest labor market, let Senator Rayner advocate the right

of American business men to bring to this country just as many Chinese as want to come and in advance contract for their labor at the cheapest possible price. Then from China let us go to the cheapest countries of Europe and make labor contracts now forbidden by our laws. And instead of the immigrants who come to this country securing the high rate of wages now paid them, give to American manufacturers the privilege of contracting in advance for labor at the cheapest prices in the cheapest countries. When this has been done the well-rounded sentences with which Senator Rayner delights to tickle the ear may have a little more sense back of them.

THE LARGE DEMAND FOR RAILS

The remarkably large orders for steel rails to be delivered this year have caused apprehension that the demand next year will be greater than the capacity of the rail mills in this country to supply in time. Several big contracts for 1907 have already been placed, so that next year's delivery booked is now 900,000 tons, with 300,000 tons to be carried over from 1906, and it is estimated that the gross orders for 1907 will reach 4,000,000 tons, most of which will be placed before January. Last year the steel-rail contracts totaled about 3,000,000 tons, and this year's business is expected to be 500,000 tons higher.

These figures are immense, it is true, but close observers of steel manufacture hope that the apprehensions of demand greater than supply will not be realized, at least uncomfortably, although some waiting by late customers may be necessary.

The increase in the size of steel-rail contracts during the last few years is due in large part to the greater size of cars and locomotives, requiring heavier rail sections to carry the traffic tonnage, but another fact is increased railroad building, notably in the South and adjacent territory to the west thereof. Concerning the first of these reasons, it may be observed that the proportion of heavy rail, 85 pounds per yard or more, in the total annual production in 1905 amounted to nearly 50 per cent., while in 1897, only eight years back, it was less than 22 per cent. of the then annual output. Of course, this greater demand for stronger rails brought about by our larger rolling stock has caused the total tonnage of steel-rail production to increase in larger ratio than the track mileage represented in the orders. And there will be more and more contracts for heavy rail sections because of the rapid increase of heavy freight traffic as exemplified in the fast growing demand for coal and iron ore as well as for manufactured iron and steel. The increase of railroad business also provides for taking care of removed old rail in the building of sidings longer and at more frequent intervals. There have been some rumors of a possible advance in steel rail, but the

market price is still \$28 per ton for heavy sections.

While the great bulk of rail manufactured are of Bessemer steel, the demand for open-hearth steel rails is growing and they may soon constitute an important percentage of the country's total rail output. Considerable of the present open-hearth product is being made at Birmingham. In the relaying of old track with heavier rail the prevalent demand is for the 85-pound section, although on some of the great trunk lines 100-pound rails are demanded for divisions where traffic is heavy, rapid and frequent. This, for instance, is the case on the Pennsylvania and Baltimore & Ohio lines between New York and Washington, over which engines of the heaviest types pass at short intervals with bulky trains. Much new construction is also being done with 85-pound rails, particularly in mineral regions such as those surrounding Birmingham, Ala., where there is always more or less building of railroads, as required by the opening of new mines.

Before long the rail-making capacity of our steel interests will be greatly increased by the erection of the large plant at Indiana Harbor, on Lake Michigan, as projected by the United States Steel Corporation. The rail mills at these works will have a daily capacity of at least 2000 tons, but it is expected that the continuance of large demand will result in giving it facilities for a considerably greater output. Besides, the demand for rails, proceeding in a considerable degree from lines in the South, is likely to bring about an enlargement of rail-making in the South, from which, by reason of proximity to market, the cost of delivery of the product would be much cheaper than it would be from Eastern mills, and in some instances also from mills in the West. Undoubtedly the time will come when the South will make practically all the rails its railroad lines may need. Just as the South is now meeting a growing percentage of its demand for cars, so may it be expected to gain in the business of rail-making and also in the construction of locomotives, besides in the manufacture of other kinds of railway equipment.

THE FORTY-SIXTH STATE.

It looks now as if Oklahoma is to be shortly admitted to the Union as the forty-sixth State. A dispatch from Washington is to the effect that an agreement has been reached so to modify one of the Senate amendments to the Statehood bill as to remove the last important obstacle to the passage of the bill, and that the effect will be the admission of Oklahoma and Indian Territory as the State of Oklahoma. There is no part of the country that will not be gratified at that. The domain to be embraced in the new State includes a land area of 69,830 square miles. There are but 14 States of the existing 45 with a greater area, and

Oklahoma will be larger than all of New England by nearly 8000 square miles. From the few thousand persons who rushed into the Cherokee strip in 1893 the population of Oklahoma has grown to more than 800,000, and with that of the Indian Territory aggregates at least 1,600,000. That represents less than 23 persons to the square mile, a density below that of every State east of the Mississippi except Florida and below the density of the whole country. In natural resources it is away beyond New England, but, with a density equal to the density of that section, it would have a population of 6,500,000, greater than the population of any State in 1900 except New York. At the rate of growth that has prevailed during the past five years in the two Territories Oklahoma may reasonably expect some approach to a population of 6,500,000 within the next 10 years. The combined growth of the Territories since 1900 is clearly indicated in the following table, based upon as reliable figures as are accessible:

Manufactures:	1900.	1905.
Establishments.....	495	1,123
Capital.....	\$4,054,391	\$16,124,417
Wage-earners.....	2,381	5,456
Value of products.....	\$8,133,936	\$24,459,107
Agriculture:		
Corn, bushels.....	32,027,256	110,442,368
Wheat, bushels.....	21,081,842	14,466,724
Oats, bushels.....	8,087,990	16,974,438
Potatoes, bushels.....	1,804,926	1,791,767
Hay, tons.....	396,576	493,698
Cotton, bales.....	356,642	648,902
Railroads, miles.....	2,399	5,273
Banks, national:		
Number.....	54	241
Deposits.....	\$5,263,000	\$30,140,000
Population.....	790,000	1,600,000
Area.....	69,830	

First of all, it may be noted that, with population more than doubling, the railroad mileage has increased from 2399 to 5273, or by 2874 miles, more than 119 per cent. In the five years the railroad mileage of the whole country increased by 22,407 miles, and the increase in the two Territories, at the rate of more than 500 miles a year, has been about one-eighth of the increase in the whole country. The number of national banks has more than quadrupled, increasing from 54 to 241, while their deposits have increased from \$5,263,000 to \$30,140,000, an advance of more than 472 per cent. Banking figures reflect the general progress. This appears notably in manufacturing industries.

The census of 1900 showed in the two Territories 1659 manufacturing establishments with a capital of \$5,976,000, with 3768 wage-earners and with products valued at \$10,976,000. What is known as the 1905 census, dealing with figures brought down to December 31, 1904, confined its canvass to manufacturing establishments conducted under what is known as the factory system, and excluding neighborhood industries and hand trade. The 1905 figures are not, therefore, to be compared with the original census figures of 1900, but the census bureau, for purposes of comparison, revised the 1900 figures, eliminating nearly 1200 establishments, nearly \$2,000,000 of capital, about 1500 wage-earners and more than \$2,000,000 worth of products. In that way a basis for safe comparison was thus obtained, and it shows an increase in the number of establishments from 495 to 1123, or 628, equal to about 127 per cent.; in capital from \$4,054,391 to \$16,124,417, or \$12,070,026, equal to 297 per cent.; in the value of products from \$8,133,936 to \$24,459,107, or \$16,325,171, equal to 200 per cent., and in the number of wage-earners from 2381 to 5456, or 3075, equal to about 125 per cent.

Comparisons in agriculture have

within them the confusing element of bad seasons, and, in two or three items, the use of figures later than 1900. But it is gratifying to note that while the showing for wheat and Irish potatoes may not be as satisfactory as one might infer from the soil capabilities of the State that is to be, its production of corn increased within the five years from 32,027,256 to 110,442,368 bushels, of oats from 8,087,990 to 16,974,438 bushels, of hay from 396,576 to 493,698 tons, and of cotton from 356,642 to 648,902 bales of 500 pounds each. Its cotton production—and only a beginning has really now been made there—was in 1905 greater than that either of Arkansas, of Louisiana, of North Carolina or of Tennessee in the cotton belt proper. The crop of Texas, the greatest cotton-growing State, was less than four times as much, and that of Georgia, which ranked second in 1905, was something more than twice as much. In corn production the State that is to be was exceeded only by Illinois, Iowa, Nebraska, Missouri, Kansas, Indiana, Texas and Ohio, the last-named State raising only 2,000,000 bushels more.

Somewhat akin to agriculture is the lumber industry which is yet to be developed in the new field. The two Territories have a wooded area of 24,400 square miles and the growths include pine, blackjack, post-oak and more valuable hardwoods. Exploitation of minerals there has made some advance, the output of coal about doubling in the five years to more than 3,500,000 tons in 1905 and of petroleum increasing from 6500 barrels to 1,500,000, with natural-gas development becoming a greater and greater aid to industry.

What the two Territories have done in the past five years and what they are now are enough to compel their immediate admission jointly as a State, and are the sure promise of the greatness of that region when to its natural advantages has been added the advantage of full Statehood enjoyed by some of the most progressive of American citizens.

ON DOING THINGS A BIT BETTER THAN THE OTHER FELLOW.

At the recent graduating exercises of the School of Instruction of the United States Revenue Cutter Service Secretary Shaw of the Treasury Department made an address which has received considerable criticism as tending to discourage rather than encourage young men. But a careful reading of the address as published at the time shows that Secretary Shaw stated very clearly, even though it may have sounded to some a little bluntly, some very important truths. In the course of his address he said:

There is little difference in the place we fill in life. The important thing is how we fill it. When young men used to ask me what they should do I used to be sometimes embarrassed, but now I have a stock answer. It is, "I don't care what you do, provided you do the thing a little better than the other fellows are doing it."

The only question is how well will you do the work that is given to you.

You will be tempted to laziness. There is more laziness in the world than any of the other shortcomings. . . . If I prayed for a boy, it would be that he might have a hard task. When you do get a hard task, thank God for it and measure up.

I am disposed to think that if the American boy is lacking in anything it is in self-reliance.

Don't get discouraged if you don't have an opportunity. Don't think you have made a mistake.

All the world's work is drudgery, but the man who does the world's best work does not think it is drudgery. The man who works

only for the pay he gets cannot stand more than eight hours, but the man who goes in for accomplishment does not mind spending 16 hours.

God bless the man with a scheme, an idea. It may be visionary, but it must be better than resting all the time.

Most boys entering upon their life-work need industry. That is what I always tell them.

It would be difficult to compress into so short a space more timely advice, homely in its expression, but ringing true, nevertheless, and well worthy of the thoughtful study not only of every boy thinking of his future, but of every parent who is thinking of the future of his boy. What the world needs is boys and men who realize the truths that Secretary Shaw has so forcibly stated and who act accordingly. The man who accomplishes something in the world, who moves the world by his brain or his muscle, is not the eight-hour-a-day man, not the man who is watching the clock for fear he may not stop exactly at the appointed hour; he is not the man who is looking for an easy job, "expecting something to turn up" or somebody to help him. The record of the great men who have wrought mightily, whether it be in the accumulation of riches, whether in literature or science or art, in mechanics or what not, would show that practically without exception they were boys or men who knew to the fullest extent the importance of the advice embodied in the address by Secretary Shaw. There is, as he said, but "little difference in the place we fill in life," whether that place be in the building of a great bridge or the shoeing of a horse, whether it be in the management of a vast railroad undertaking or the running of a farm. Honor and happiness can be found in either place. But there is a tremendous importance in how we fill the place and do the work in our appointed sphere. Upon that depends whether we shall gain honor and happiness and whether there is for us a justification for advancement or not. Out of a thousand men there may possibly be one who can "do the thing a little better than the other fellows are doing it," and that one is the man who counts, who does things. To a considerable extent his very success is responsible for much of the envy resulting in criticism and denunciation which he gets from the other 999, who, either by reason of laziness, lack of concentration or unwillingness to bear the burden necessary to "do the thing a little better than the other fellows are doing it," go backwards rather than forwards.

"The only question," said Secretary Shaw, "is how well will you do the work that is given to you." That is the supreme question in the life of every boy and every man. How well will you do the work, whether it be of brain or of brawn, of material advancement or of ethical improvement? What will you do with the time, the talents and the work committed to your care? Laziness may tempt you, laziness not such as the world usually means when it speaks of a lazy man, but the laziness of inertia, of lack of initiative, of lack of self-reliance, the laziness which prompts you to seek your ease and comfort rather than the energy which inspires you to concentrate upon your life-work every energy and power which the Creator has implanted in man. When you realize what this means, then you may, as Secretary Shaw said, "thank God for the hard task and measure up to it." It is only by "measuring up" to life's work that anything is accomplished. To the boy

or the man who lacks love of work, who fails to develop his initiative and his self-reliance, it may be true that "all the world's work is drudgery," but to the man who rejoices in his ability to run the race, who rejoices in the strength given him to fit himself for a part in the world's affairs, to the man who "does the world's best work," nothing is a drudgery.

Secretary Shaw's talk was reported by many papers as tending to discourage those who were entering the Revenue Cutter Service, and many papers have undertaken to criticize his address, but surely they have not read it. Instead of a lot of useless platitudes, he evidently appreciated the responsibility of telling the young men to whom he was speaking that "life is real, life is earnest," and that if they would succeed they must succeed along the lines which he laid down. Instead of provoking criticism, the truths which he so clearly stated should be unceasingly emphasized whenever and wherever men seek to awaken in the college graduate or in the boy starting life an appreciation of the only path which he can follow to honor and success.

RAILROADS AND COAL LANDS.

On May 28, 1903, referring to the action of the management of the Pennsylvania Railroad in cutting down the poles of the Western Union Telegraph Co., the MANUFACTURERS' RECORD said:

In its vigorous action in cutting down the poles of the Western Union Telegraph Co. the Pennsylvania Railroad may have had the technicalities of law on its side, but, even if so, it was a high-handed proceeding, calculated to do infinite harm to all business interests, and it must inevitably react upon the Pennsylvania road itself. Public sentiment when fully aroused is greater than even the Pennsylvania Railroad, and public sentiment, following economic necessity, is determined that the Pennsylvania Railroad shall not be the final arbiter as to who may dare to invade its territory. Because the Gould railroad system is building into Pennsylvania and West Virginia the Pennsylvania Railroad, with unbounded effrontery, undertakes not only to block that move, but, with a malice scarcely conceivable except in lawless piratical acts of unscrupulous men, determines to wreck, if possible, the Western Union simply because the Goulds are controlling factors in that enterprise. In this the Pennsylvania Railroad has given to the populist agitators who are forever denouncing corporations a greater excuse for their work than anything which has happened for many years. The only explanation that can be imagined is that the management of the Pennsylvania Railroad has completely lost its head.

Recent developments as to the management of the Pennsylvania Railroad are not calculated to lessen the injury to the business interests of the country by the populist spirit necessarily developed by such "lawless, piratical acts of unscrupulous men" as the destruction of the Western Union poles. But for the effort of the Gould system to get into the West Virginia coal field, against which the Pennsylvania was making its bitter fight when it sought to injure the Western Union in order to injure the Goulds, that State would be cursed with a monopoly created by the practical control of the Baltimore & Ohio, the Chesapeake & Ohio and the Norfolk & Western by the Pennsylvania system. Following the determination of the Goulds to build through West Virginia came the great work of the Deepwater-Tidewater system, and these two enterprises gave hope and life to all the coal interests of the State. The policy announced by the Deepwater-Tidewater people, that they would not undertake to be large owners of coal land, but would furnish facili-

ties for all coal operators, their plan being to build a road equal to the handling of all the traffic that might be offered, is unquestionably the wisest and safest policy for railroads and for the people. In times past it has often been necessary for railroads to own and develop coal properties in order to create traffic, and as an acre of coal land furnishing from 5000 to 10,000 tons of coal will create as much tonnage as an acre of agricultural land will create in 10,000 years, it is not to be wondered at that the great financial and railroad influences of the country have sought to hold a dominating position in the coal fields. This might have been justified had each road dealt fairly with the public and had no one road ever attempted, as the Pennsylvania has done, to capture all competing roads and thus control a whole State, as in the case of West Virginia. And yet even this may have been brought about by a force of circumstances difficult to meet on any other basis.

The Pennsylvania Railroad people claim that Mr. Carnegie was in receipt of large rebates. This Mr. Carnegie denies, but it is to be presumed that the present investigation will soon settle the question as to who is telling the truth. The general understanding at the time of the formation of the United States Steel Corporation was that Mr. Carnegie, having been denied some special privileges or advantages by the Pennsylvania, announced his intention of building a new railroad from Pittsburgh to the coast and give to it not only all of his freight, but all that he could control, and that the fear of this disruption of the whole Eastern railroad system resulted in the organization of the United States Steel Corporation and caused the promoters to pay \$500,000,000 or \$600,000,000 to Carnegie and his associates for what a year before he had offered for sale at \$100,000,000.

At any rate, the building of the Gould line and the Deepwater-Tide-water makes impossible the monopoly which has heretofore existed in the West Virginia coal field. The spirit which animated the Pennsylvania management in its anarchistic work in cutting down the Western Union poles promises to once more prove that he who sows the wind is likely to reap the whirlwind.

SOUTHERN FARM MAGAZINE.

One State after another in the South is developing a deeper and deeper interest in the subject of immigration and is planning practical means to accelerate the movement of settlers in that direction. At least six States have established bureaus or departments of the State government which are giving especial attention to building up the industries, agriculture and commerce through immigration, and in most of the other States railroad or private enterprise is working to the same end. Phases of this movement are given considerable attention in the June issue of the *Southern Farm Magazine*, and two papers, one by Mr. M. V. Richards of the Southern Railway and the other by Mr. Robert Gates of the Louisville & Nashville Railroad, showing the intimate relations between immigration and the growth of manufactures, will undoubtedly attract wide attention. From Maryland to Texas and from Kentucky to Florida the need of more workers is becoming more and more pressing, the South being able to absorb immediately 500,000 of them to have its waiting tasks accomplished, and the latest issue of the *Southern Farm Magazine* em-

bodies much of the current agitation of the subject. Other topics bearing upon the farm discussed in this issue are poultry, rice, sugar-cane, tobacco, cotton, alfalfa, dairying, live-stock, etc., while editorially and otherwise are treated vital questions in politics, education, religion, philanthropy, etc.

The *Southern Farm Magazine* is published monthly by the Manufacturers' Record Publishing Co., Baltimore, Md. Price \$1 a year.

SOURCES OF RICHMOND'S WEALTH

Hints of the origin of much of the wealth of Richmond, Va., noted recently in the *MANUFACTURERS' RECORD*, were given at the recent banquet of the Chamber of Commerce of that city. The hints were particularly prominent in the speech of Mr. Joseph Bryan, who spoke of the annual output of \$19,500,000 from tobacco factories, one concern having an output yearly of 250,000,000 cheroots and cigars; of \$9,081,000 from iron works, of \$3,000,000 from the boot and shoe trade, of \$8,000,000 from the fertilizer trade and of \$3,300,000 from the paper-stock business. He mentioned the revival of flour milling, now having a daily output of 2500 barrels; the publishing business, one concern turning out 1,500,000 books; the printing business, employing 1400 persons; the leather trade, the varnish works, the great cedar-works and other industries. Practically all of these are the products of Richmond brains and Richmond energy, and their profits have made and are making Richmond wealth.

FOR CIVIC IMPROVEMENT.

It is auspicious that the recently-organized Civic Improvement League of Columbus, Ga., is headed by Mr. F. B. Gordon. The league has for its main object to make Columbus as attractive a place of residence as possible, and it proposes to be a center of organized public sentiment to that end. President Gordon is admirably fitted to lead in the movement. He has given many evidences of progressive interest in the welfare of the community, and in a statement last week sketching the purposes of the league he showed his practical mind in suggesting that the body will eschew fads, will be actuated by common sense, will stand ready to co-operate in an advisory way with the city officials, and in advocating any project for health or beauty will have due regard for the fact that the resources of the city are limited.

TO UPBUILD GEORGIA.

At the annual meeting next week of the Georgia Industrial Association, largely representative of the cotton-mill interests of the State, special attention will be given to the question of immigration and addresses will be made by men thoroughly acquainted with the subject and of practical experience in the field. For several years efforts have been made to establish in Georgia a State bureau of immigration. Public sentiment in favor of it seems to be at present stronger than ever before, and it is hoped that the gathering next week may crystallize the sentiment so effectively as to induce positive action by the next legislature.

PAPER FROM COTTON STALKS.

Mr. W. W. Gibbs of Philadelphia writes the *MANUFACTURERS' RECORD* that Mr. M. W. Marsden, president of the Cotton Plant Development Co., "has practically completed tests proving the ability to make on an economic business basis paper out of cotton stalks. After an exhibit and investigation of the methods and character of the product, some prominent people are taking up the exploitation of this perfected method with a view to develop-

ing the industry and utilizing the waste cotton stalks of the South."

THE COTTON MOVEMENT.

In his report for May 25 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during the 267 days of the present season was 10,297,870 bales, a decrease under the same period last year of 1,834,841 bales; the exports were 5,867,500 bales, a decrease of 1,617,704 bales; the takings were, by Northern spinners, 2,162,409 bales, an increase of 90,605; by Southern spinners, 1,879,542 bales, an increase of 70,377 bales.

CHARLESTON, W. VA.

The industrial edition of the *Charleston Daily Gazette*, in seven sections and with a total of 52 pages, contains an interesting review of the history of the flourishing and progressive capital city of West Virginia, descriptions of its many lines of activity and sketches of the men who, in winning success themselves, have contributed mightily to the advancement of the city. The edition should be effective in increasing the interest of the country in West Virginia.

A \$5,000,000 PROJECT.

Another Big Water-Power to Be Developed in Virginia.

It is evident that there is to be no cessation of activity in the development of water-powers throughout the entire South until all the available properties in that section are being utilized. With the perfection which engineers have realized in the distribution by electricity of energy obtained from water flow there has been greatly-increased activity in such developments during recent years, and the South is figuring most prominently in this branch of industrial advance. These remarks are prompted by detailed information which the *MANUFACTURERS' RECORD* has received of another big water-power-electrical enterprise to be established in Virginia by Baltimore, New York and Montana capitalists, it being understood that the Westinghouse companies are interested in the project. This latest announcement is the organization of the Eagle Falls Light and Power Corporation, which has been incorporated under Virginia laws. The company has purchased lands and secured franchises providing for the development of the Roanoke river at Eagle's Ferry, about 12½ miles from Clarksville, Va. The junction of the Staunton and Dan rivers at Clarksville forms the Roanoke river, and at the point of developments it is said to be about 600 feet wide, the banks being about 10 feet high and granite bluffs about 75 feet high rising on each side. The company will build a dam at Eagle Falls to back up the water into a lake which will be two miles wide at some points. It is claimed this will develop about 40,000 horse-power, which is to be transmitted by electricity for lighting and power purposes to cities in North Carolina, including Durham, Henderson, Oxford, Franklinton, Hillsboro and Chapel Hill, all of which have cotton mills and other factories, as well as to cities in Virginia. A radius of 60 miles is to be covered by this transmission. Besides this Eagle Falls power, the company plans in the future to develop 5000 horse-power at Hyco Falls, on the Dan river, and 5000 horse-power at Tally Falls, on the Staunton river. These, however, will not be given attention until the first development of 40,000 horse-power is being distributed. The Eagle Falls Light and Power Corporation has the following officers: President, Henry G. Merry, Equitable Building, Baltimore, Md.; vice-president, Paul T. Brady of the Westinghouse Electric & Manufacturing Co., New York,

and secretary-treasurer, Oliver Todd Smith, also of the Westinghouse Company, Goldenbridge, N. Y. Messrs. Merry, Brady, Smith, Henry A. Root of Butte, Mont., and R. W. Lassiter, president of the First National Bank, Oxford, N. C., are the directors. The company has a capital stock of \$5,000,000. Its consulting engineer is John Bogart of 16 Exchange Place, New York city.

The announcement of this important project makes it timely for the *MANUFACTURERS' RECORD* to refer to the more important Southern water-power-electrical enterprises, details of which have been stated in various issues during the year. These include the Whitney Company of Whitney, N. C., composed of New York and Pittsburg capitalists, now developing about 40,000 horse-power on the Yadkin river in North Carolina, to be increased to 75,000; the Chattanooga-Tennessee River Power Co., developing 42,000 horse-power on the Tennessee river below Chattanooga, Tenn.; the Southern Power Co. of Charlotte, N. C., whose plans include in all some 75,000 horse-power under development, with as much more in prospect; the Southern Light & Power Co. of Atlanta, Ga., which aims to eventually furnish nearly 100,000 horse-power, and the Columbus Power Co. of Columbus, Ga., which is said to control riparian rights that can be developed for 75,000 horse-power. Various other facts of interest in connection with these enterprises, as well as many others of lesser magnitude, have been detailed in the *MANUFACTURERS' RECORD* previously.

BARBOURSVILLE ENTERPRISE.

Activity in Building and Industrial Projects There.

[Special Cor. Manufacturers' Record.]
Barboursville, Ky., May 28.

There is unprecedented activity in building and industrial projects in this city and vicinity, and the Barboursville Commercial Club is strenuously endeavoring to attract the attention of outside capitalists to the resources of Knox county and South-eastern Kentucky. New enterprises are exempted from municipal taxes for a period of five years, and this fact, together with a description of natural resources, shipping facilities, etc., are set forth in an attractive folder.

Among building projects proposed and under way in this city are: First Methodist Church building, cost \$8000; new dormitory for Union College, cost \$30,000. Bids have been asked on a \$10,000 to \$15,000 annex to the Knox county courthouse, and on a \$5000 to \$8000 annex to the high-school building. Building projects represented by residences are numerous, and represent an expenditure in the aggregate of probably \$50,000. Local capitalists last week acquired a water-works franchise, and machinery is now being ordered, and the system will be in operation by December. S. H. Hale of the Barboursville Electric Light Co. is at the head of the new venture. Local capitalists headed by L. A. Farmer have obtained a natural-gas franchise and propose to utilize some of the excellent gas wells that have been drilled within a radius of two or three miles of the city. Within the city limits an excellent brick clay has been discovered and a modern brick plant with a daily capacity of 60,000 brick has been installed. Dishman & McDermott control the stock of the Barboursville Brick & Tile Co.

Within a radius of 12 miles of this city a great amount of new capital is being expended in coal development, which constitutes the most important industry in this section. Yesterday the Cumberland Coal Co., a new concern, began shipments from its operations on Brush creek. This concern has expended approximately \$200,000

in opening its new mines, which are probably the largest in Kentucky or Tennessee. The Coalport Coal Co., composed of local men, is expending \$25,000 in developing holdings at Coalport, six miles from here. The Lynn Camp Coal Co. of central Kentucky is installing a \$25,000 plant at Roseland, 10 miles north of this city. Among deals of the past week Faulkner, Gaddie & Stanfill of this city acquired several hundred acres of coal lands on Brush creek and are arranging right of way for a short railway line into their property. Mills and mining machinery will be installed. G. W. Tye and associates of this city have acquired several hundred acres at Cumberland and will begin coal operations in the near future. J. D. Black and associates, also of this city, have acquired 1000 acres on Brush creek, but will not develop their holdings at once. The Bennet Coal Co. has already developed holdings on Brush creek, and is now getting out a good tonnage. The largest single operation in Kentucky is that of the North Jellico Coal Co. at Wilton, 10 miles south of here.

Oil and timber resources have attracted a vast amount of capital, but interest in the former has temporarily declined. The Standard Oil Co. has a pipe-line system through the county and a fine pumping plant here. Probably \$2,000,000 have been expended in oil developments within a radius of seven miles of the city. Numerous excellent gas wells have been drilled. Short railroads into coal fields are leading to timber development, which is usually carried on in connection with the coal development. W. S. HUDSON.

MEMPHIS' SUMMER PROSPECT.

Activity in Lumber and Other Lines of Trade.

[Special Cor. Manufacturers' Record.]
Memphis, Tenn., May 26.

The summer aspect in Memphis along all industrial and manufacturing lines looks much better this year than last. The prospects begin to point to a large cotton crop for the fall. There is a practical certainty of no quarantine this year. Prices on lumber, cottonseed products, boots and shoes, feedstuffs and groceries are up. The demand for all these items, that form a part of trade resources in this market, is extraordinarily good. The City Directory people, who have their book in press for 1906, announce that the book, using the usual directory multiple, will show upwards of 190,000 population for the city, and this is moving with ease toward the quarter-of-a-million mark, toward which the city has been bending its energies for 1910.

The lumber market here presents an activity rather unusual for the period when summer is at hand and when the mills have been operating for some weeks in a steady way just as they have, but it is ascertained that stocks are not accumulating, and the demand has held up wonderfully well. There is a suggestion that the cypress market may be a trifle less active, but gum is in good request, especially in thin stock and in the lower grades. Cottonwood in boxboards is strong and in good demand. Plain oak has not lost in strength. Poplar has increased somewhat. Ash is in demand, and stocks are very limited in this wood. Chestnut is in favor with the casket makers, and is quite scarce. Quartered sawn white oak is in a good deal better demand than red oak, but is not especially active. The season is favorable for production now, but there is little expectation of a weaker hardwood market for several weeks to come, because receipts here seem to be no larger than shipments out, and this demand comes from a wide territory in the domestic and foreign markets.

A large lumber firm launched here is

the Cornerstone Lumber Co., with a capitalization of \$350,000. W. J. Richardson, N. Thompson of Memphis, C. D. Coddington of Pittsburg, Pa.; C. W. Stover of the Stover Lumber Co., this city, and others are interested. The company owns 15,000 acres of timber land near Pine Bluff, Ark., and will put in a hardwood plant in that district, while the principal office will be maintained in Memphis.

Improvements have just been begun to the Fransiola Hotel on South 2d and Union streets. An addition of 24 rooms and certain other improvements will be made to the value of about \$20,000. The contract has been let to F. B. Young. Architects Chighizola, Hanker & Cairns prepared the plans.

ROANOKE RAPIDS' GROWTH.

Recent Additions to the Industries of the City.

[Special Cor. Manufacturers' Record.]
Roanoke Rapids, N. C., May 28.

Roanoke Rapids, one of the thriving communities of North Carolina, is situated at the Great Falls of the Roanoke river and on the Seaboard Air Line Railway near Weldon. Some years ago the falls and the riparian rights on both sides of the river were purchased and 4000 horsepower was developed, bringing about the establishment of several large and important manufacturing enterprises and various small industries and increasing the population to about 2000.

The first two big mills erected, and still the most important there, are those of the Roanoke Mills Co., operating about 15,904 spindles and 600 looms, and the Rosemary Manufacturing Co., operating 12,000 spindles and 268 looms. These two mills use the power from the Great Falls, the water-power-electrical plant being owned by the Roanoke Rapids Power Co. This latter company has recently determined to increase its development to about 10,000 horsepower, and expects to have the plans and specifications completed so that bids for construction can be invited within the next 10 days. Some 3700 horse-power is already contracted for, and 2500 horse-power additional is under option, which, of course, means the erection of more factories. One important plant already assured is the wrapping-paper mill to be built by the Roanoke Rapids Paper Manufacturing Co., reported in the industrial news columns of the MANUFACTURERS' RECORD several weeks ago. The buildings for this mill will be erected of brick, concrete and steel, and it is understood that Jos. H. Wallace of New York, the engineer in charge, is rapidly closing all the contracts for construction and equipment of machinery. This is a \$150,000 enterprise, Virginia and North Carolina capital being invested in it.

There is to be a steel bridge constructed across the Roanoke river at a cost of about \$30,000, contract probably to be awarded June 1. This bridge will be owned by the Roanoke Rapids Bridge Co., which incorporated some days ago with an authorized capital stock of \$50,000. Messrs. H. C. Cooper and John L. Patterson of Roanoke Rapids and T. L. Emry of Weldon, N. C., who are interested in the textile mills, the paper mill and the power company, are the principals in the bridge company. Especial efforts are being made at this time to secure more manufacturing industries for Roanoke Rapids, and doubtless the city's advantages will be better recognized every day and the municipality will steadily grow in importance as an industrial center.

A \$125,000 Tannery.

There will be an extensive tannery established at Alderson, W. Va. It is announced that about \$125,000 will be expended to erect and equip the plant, 15

acres of land to be occupied as the site and construction work to begin at once. Plans are to consume 5000 cords of tanbark annually and tan 200 hides every day. The officers of the company are: President, William W. Herschberger; secretary and treasurer, Ernest Wakefield; general manager, Chas. D. Herschberger, and vice-president, John F. Johnson of Pickens, W. Va.

DENATURIZING ALCOHOL.

How the Operation Is Performed in Germany.

Consul-General Thackara of Berlin, writing on the use of denaturized alcohol in Germany for technical purposes, says that the subject was ably and exhaustively treated by his predecessor, Consul-General Mason, in various reports on the subject. He gives the following extract from one of Consul-General Mason's reports regarding the methods in use in Germany for the denaturalization of alcohol:

"For most industrial purposes alcohol is used in Germany duty free, after having been 'denaturalized' or rendered unfit for drinking purposes by admixture, in presence of a government official, with a prescribed percentage or proportion of one or more of several different substances prescribed in the very elaborate statute which governs the complicated subject in Germany. There are two general classes or degrees of denaturizing, viz., the 'complete' and the 'incomplete,' according to the purposes for which the alcohol so denaturalized is to be ultimately used.

"I. Complete denaturalization of alcohol by the German system is accomplished by the addition to every 100 liters (26½ gallons) of spirits: (a) Two and one-half liters of the 'standard denaturizer,' made of 4 parts of wood alcohol, 1 part of pyridin (a nitrogenous base obtained by distilling bone oil or coal tar), with the addition of 50 grams to each liter of oil of lavender or rosemary; (b) one and one-fourth liters of the above 'standard' and 2 liters of benzol with every 100 liters of alcohol.

"Of alcohol thus completely denaturalized there was used in Germany during the campaign year 1903-1904, 931,406 hectoliters denaturalized by process (a), as described above, and 52,764 hectoliters which had been denaturalized by process (b). This made a total of 26,080,505 gallons of wholly denaturalized spirits used during the year for heating, lighting and various processes of manufacture.

"II. Incomplete denaturalization, i. e., sufficient to prevent alcohol from being drunk, but not to disqualify it from use for various special purposes, for which the wholly denaturalized spirits would be unavailable, is accomplished by several methods, as follows, the quantity and nature of each substance given being the prescribed dose for each 100 liters (26½ gallons) of spirits: (c) Five liters of wood alcohol or one-half liter of pyridin; (d) 20 liters of solution of shellac, containing 1 part gum to 2 parts alcohol of 90 per cent. purity (alcohol for the manufacture of celluloid and pegamoid is denaturalized); (e) by the addition of 1 kilogram camphor or 2 liters oil of turpentine, or one-half liter benzol to each 100 liters of spirits.

"Alcohol to be used in the manufacture of ethers, aldehyde, agaricin, white lead, brom-silver gelatins, photographic papers and plates, electrode plates, collodion, salicylic acid and salts, aniline chemistry and a great number of other purposes is denaturalized by the addition of (f) 10 liters sulphuric ether, or 1 of benzol, or one-half liter oil of turpentine, or 0.025 liter of animal oil.

"For the manufacture of varnishes and inks alcohol is denaturalized by the addition

of oil of turpentine or animal oil, and for the production of soda soaps by the addition of 1 kilogram of castor oil. Alcohol for the production of lanolin is prepared by adding 5 liters of benzine to each hectoliter of spirits.

"The price of denaturized alcohol varies in the different States and provinces of the empire in accordance with the yield and consequent market price of potatoes, grain and other materials. At the present time alcohol of 95 per cent. purity, which is the quality ordinarily used in Germany for burning, sells at wholesale from 28 to 29 pfennigs (6.67 to 6.9 cents) per liter (1.06 quarts), and at retail for 33 pfennigs (7.85 cents) per liter."

TEAR OUT! TEAR OUT!!

Thus it has been for about 50 years. As soon as a manufacturing plant gets in fix and the executive committee takes a long sigh of relief, saying "We are fixed," along comes some new improvement which consigns our high-price up-to-date machines to the scrap pile. We are obliged to do this in order to keep up with the improvement. Without it our products would be costing more than we could get income from the sales.

When the power in steam was discovered we built engines with a lever, and a man or boy to open the valves by hand. We felt good, and thought we were fixed up for all time to come. But soon a sleepy-headed boy, in order to get rid of the burden of his job, adjusted a rude eccentric, or fixed his job onto the machine so it became automatic. And there came a regular "tear out" to put in the automatic slide-valve engine. Then came another sigh of joy and relief, "We are fixed," and man had only to throttle his power. This throttling went on with the nodding engineer standing hand on a lever going up and down to keep the machinery regular.

Then came the invention of a governor, and another "tear out." The fundamental principles of steam power thus being established, we all really rested for a generation. No more "tear outs" for a long while. Then came the Corliss engine, producing the greatest "tear out" of all.

But the Louisiana Purchase Exposition opened our eyes to the fact that we were too far behind to admit our position, and that we were on the brink of another great "tear out," greater than ever. There we found the steam turbine, nothing but a black casting about four feet in diameter and six to twelve feet in length. So little like a machine we felt in our fatigue like taking a seat thereon. No danger. All lying there dead still, but a four-inch shaft extending through this black casting from end to end, and on one end was a pulley whirling as though the belt was the propelling power moving the shaft. Another "tear out" to give way for the turbine. Last, but not least, and this time so quickly following the steam turbine, comes the gas and gas-producer engine.

And now we feel there is no more "tear outs," and we and our children after us can rest easy for a generation, reaping the fruits of all our many "tear outs."

Many times a "tear out" is the only salvation for one of these old "better-let-good-enough-alones," who refuse to "tear out" till sold out; then their successors "tear out" for them and become prosperous.

Keep abreast of the times. Make the cheapest possible products with up-to-date machines. "Tear out" and keep tearing out so long as science offers you something better than what you have—otherwise the up-to-date factory will fix the prices of your products and you will barely be able to produce at such prices, leaving profits out of consideration. J. H. REEVES.

LOUISIANA'S GREAT SULPHUR MINES.

[Special Correspondence Manufacturers' Record.]

Lake Charles, La., May 26.

The works of the Union Sulphur Co. at Sulphur, near Lake Charles, La., have reached a point, with regard to magnitude, but little known to the public. Here is one of the greatest steam-generating plants to be found anywhere. Imagine 140 boilers of from 150 to 200 horse-power each generating steam as fast as the use of fuel oil applied in the most approved method will permit, yet which are insufficient in capacity to meet the increasing demands of sulphur production. The mines have an output of from 400 to 600 tons of sulphur daily, and this, too, in the form of practically pure sulphur, forced from the bowels of the earth in veritable streams of molten gold. When one has mentally digested these facts he will have conceived an idea of the importance and the wealth-producing capacity of the plant of the Union Sulphur Co.

The peculiarity of this great plant consists in the application of steam and hot water as a producing or mining agent. The generation of steam is, therefore, not for power purposes, and while there has been expended for boilers, pumps, heaters and piping perhaps \$2,000,000, a few hundred dollars would cover cost of steam-power engines. The latter are used for operating machine-shop shafting and in one or two other locations on the premises where power is required.

Oil was discovered in this favored region early in the last century, though the presence of greasy coats on bears shot down by hunters and trappers. Seepage of petroleum and gas was discovered near where the sulphur mines are now located. Sulphur deposits were also known to exist in this locality, although petroleum was the product which at that time offered most attraction, due to the fact, probably, that the real value of sulphur then was unknown in these parts. The Civil War temporarily checked further operations in the pursuit of oil. In 1868 a well was sunk to a depth of 418 feet and a good flow of oil was struck. In anchoring the casing the sulphur deposits were discovered, and subsequent developments revealed a stratum of almost pure sulphur of from 125 to 250 feet depth. Sulphur at that time commanded a higher price on the market than now. It was soon realized that it was a much more valuable product than oil, and everything gave way for the purpose of devising practical means of obtaining the sulphur in merchantable quantities. A shaft 20 feet square with wood curbing was sunk to a depth of 90 feet, but the appearance of quicksands caused the abandonment of this method. In 1870 a French company decided to take hold, and after experimenting by means of immense iron rings, a sort of caisson system, this, too, was abandoned. It consisted of sinking the rings, which were 12 feet in diameter by 5 feet in height, weighing 7½ tons each. One hundred and twenty-two steel rings of this character were imported from France, and after sinking 38, making a total depth of 190 feet, quicksand and foul gases, which caused considerable loss of life, prevented further work on this line. Large sums of money had been expended up to this time in the vain effort to land the much-prized sulphur on the earth's surface, and many were the schemes suggested, and, in turn, abandoned before present methods, which have proved successful, were finally adopted.

At that time new forces secured controlling interest in the ownership of this sulphur-rock land, and their first step was to make a test of their holdings, which in the aggregate amount to several thousand

acres. Recent developments would indicate they own all the sulphur-bearing land in Calcasieu county. A bed of sulphur was discovered from 400 to 500 feet from the surface varying in thickness from 125 to 250 feet, and this with an average of 98 per cent. pure. The enormous output of the sulphur mine is today marketed on a guaranteed-pure basis of 100 per cent. Knowledge of the existence of the vast quantity of sulphur had the effect of redoubling the efforts to devise a suitable means of securing it in a manner not detrimental to human life and at the same time on a scale commensurate with the supply.

It was known that salt had been successfully mined by being dissolved in water and the brine pumped to the surface, where, by means of evaporation, it was transformed into solid form. Herman Frasch, an engineer and a stockholder of the company, conceived the idea of forcing the sulphur to the surface in liquid form, and while sulphur could not

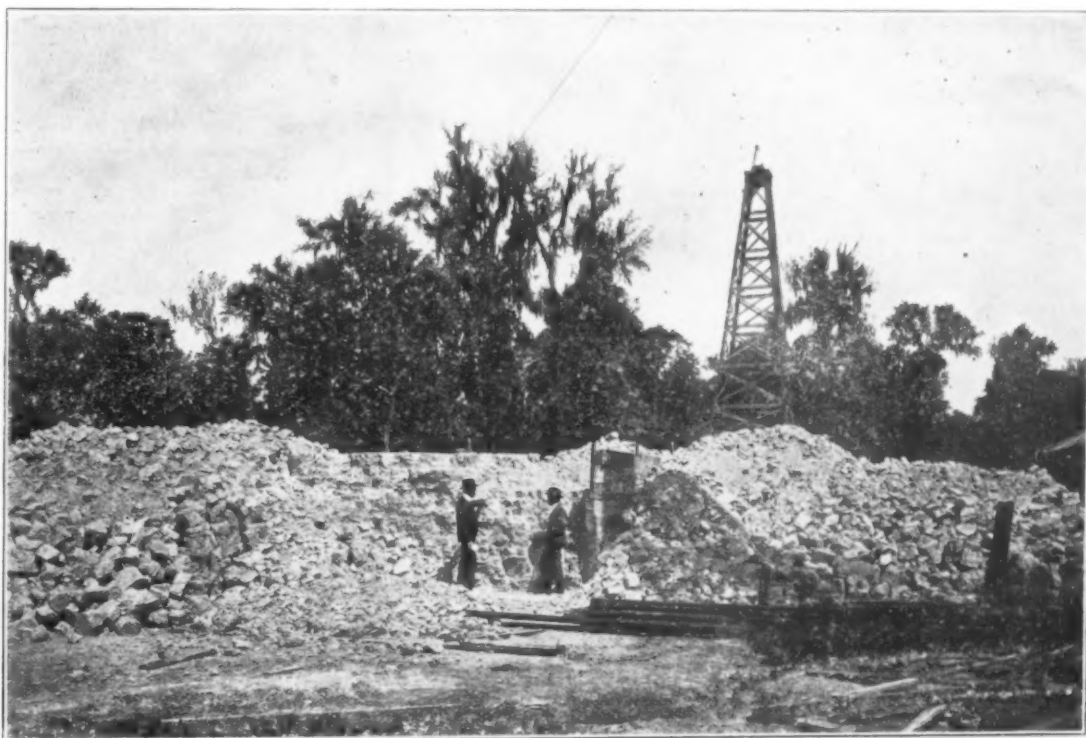
pipe with a screen on the end, and is sunk a little lower than No. 3; No. 5 is a 1-inch pipe sunk to the bottom of No. 4.

The following describes the method reported to have been in operation about five years ago, which is said to be in conformity with the patent documents, but which is really materially different from the present method which came under my personal observation and which I shall describe later on in this article:

When ready to pump a well they would steam up their 15 boilers and pump into the 5¼-inch pipe water heated to about 350 degrees. This was continued for eight or ten days, when sulphur, transformed into a yellow, transparent, steaming liquid, was pumped into cooling vats, previously prepared of lumber, about 25x100 feet and one foot deep, where it spread out, filling the vats and cooling into a deep yellow, glistening rock. When thoroughly cooled it was broken up with picks and piled to one side, ready for market.

Today the method, which is by far superior to that said to be of the past, is as follows: Each battery of boilers consists of about 20. There are on the grounds of the company seven batteries. To each bat-

tery is attached a superheating steam system as well as air-compressing equipment. A battery of boilers furnishes the desired amount of steam for the operation of a fixed number of wells—four, six or eight, as the case may be—while there are on the grounds upwards of 40 derricks or pumping rigs, many of which have not yet been opened up, but stand ready for drilling and producing. The boilers are especially made for the use of oil fuel. Each boiler carries from 90 to 100 pounds of steam pressure. In an adjoining building to each boiler-house the pumping and superheating machinery is located. The heaters consist of vertical boiler-shaped receptacles of about four feet in diameter and perhaps 16 feet in height. Well-constructed piping running zigzag through the interior of the heater from top to bottom, through which the steam courses direct from the boilers, runs up the temperature of the water to 312 degrees. The hot water is then forced by means of air-compressing machinery down to the sulphur-rock stratum, perhaps 800 feet in depth. The effect of the hot water on the sulphur rock causes the sulphur to become liquefied, and it is then in shape to be forced out and to the surface. This is effected by means of piping, one size being encased in the other. The outer pipe is 12 inches in diameter, the inner one about six inches in diameter. The space between the outer and inner piping is used to carry the superheated water down to the sulphur deposit, while the inner pipe is the vehicle through which the molten sulphur is forced up from the bottom to the surface. The superheated water which enters the well through the 12-inch piping referred to is forced downward by means of air compression. Continuous pressure, therefore, results in forcing up the liquefied sulphur from the bottom in a constant stream. It is then carried overhead by piping to great vats suitably located throughout the premises. These vats simply consist of boarding or common one-inch lumber run up 20 feet, the vat forming a square of from 75 to 100 feet. The discharge pipe from the wells is fixed so that the molten material falls almost in the center of these great vats. The moment the liquid strikes the earth the water begins to evaporate and the sulphur to congeal, and before its outer edges have spread out as far as the four walls formed



SULPHUR READY FOR MARKET.

be dissolved like salt, that if heated at a high temperature, reducing it to liquid form, a similar agency to that which had proved successful in salt-mining could be introduced. A battery of boilers was accordingly installed, and after pumping water heated to 350 degrees into the well for about 10 days the yellowish liquid began to appear on the surface, and the greatest sulphur mine in the world was opened up. After being raised to the surface the sulphur is turned into cooling vats, where it is allowed to cool until it is ready for the market. The sulphur as it comes from the well is of 99 per cent. purity, and, outside of medical purposes, rarely needs refining. The processes of operation in the various forms are covered by patents, but these are misleading. The patent calls for a special method of sinking a well with five casings. The pumping outfit resembles, and is, in fact, almost identical with petroleum-producing rigs. The patent documents read: No. 1, the outside casing, is a 13-inch pipe driven through the quicksand; No. 2 is a 10-inch pipe anchored in the sulphur rock; No. 3 is a 5¼-inch pipe sunk several feet into the sulphur rock; No. 4 is a 2½-inch

pipe with a screen on the end, and is sunk a little lower than No. 3; No. 5 is a 1-inch pipe sunk to the bottom of No. 4.

by the one-inch boarding it has solidified. When the vats are filled to the top and evaporation ceases, the side boardings are removed and an immense square block of solid and pure golden-yellow sulphur stands ready for shipment. The sides are picked for the purpose of loading into box cars, and while disintegrating readily, falls in masses down the crumbling bank, resembling common rock, excepting in color.

An extraordinary feature of the operations is that none of the wells has run dry. The effect of the steam and superheated water forced into the sulphur beds has the effect of causing apparently never-ending streams of molten sulphur to rush from all directions from their subterranean beds to the mouth of the pipe, through which it is forced by air compression to the surface.

Railroad tracks intersect the interior grounds, so that trains of box cars can be set at advantageous locations adjoining the sulphur vats for loading purposes.

As is well known, the product is used to form important compounds of great value in the arts. In its pure state it is used extensively in the manufacture of gunpowder, matches, fertilizers and for vulcanizing rubber, but its chief consumption

is in the manufacture of sulphuric acid. Refined sulphur is used in various ways as a medicine.

The company has acquired in fee simple about 4500 acres of land in one body. This tract is about two miles wide from east to west, while from the northeast corner to the southwest corner the distance is nearly five miles. Within this territory they have sunk 41 wells, in every one of which they found oil and sulphur, while up to this time none has become exhausted. Much of the product is shipped to New York as a distributing point.

To illustrate the purity of the product obtained from these mines, it may be mentioned that foreign governments at first refused to admit it as raw material, charging duty on it as a manufactured article, until the company's agents abroad substantiated the truth of the statements, namely, that their product was, as they claimed, raw material.

Herman Frasch, manager of the company, in conversation with several of the bankers who visited the mines on the oc-

battery of boilers are of the Atlas make. There are a large number of boilers in operation, complete batteries of the Erie City Boiler Works type, while among those of recent purchase are also a number of the Consolidated Boiler Co.'s make of boiler. There are eight large high and low air pressure compressing engines of the Hall Steam Pump Co.'s make, Pittsburgh, Pa., while probably 100 force pumps of large capacity of the Snyder-Hughes Company, Cleveland, Ohio, make are in regular operation. The superheaters are now being encased by Ambler Company's asbestos material, Ambler, Pa. A test of one of the superheaters in operation without asbestos covering, as compared with one which had been encased, proved conclusively the economic virtues of the asbestos covering, with the result that the entire superheating and steam-piping system will be encased with this material at as early a date as possible.

The enormous plant is operated on economic principles of a character rarely found in smaller plants. For illustration,

pumping the water from the adjoining canal to the boiler water supply tanks; thus a great saving is effected in the matter of pumping at a minimum of cost. The gauge of the water meters and amount of oil consumption is carefully recorded daily.

The methods which prevail in the interior of the works are guarded and screened from public view. Orders to the officials at the works from the New York offices are to the effect that no one shall be permitted inside the works. Every employee on the grounds has orders not to give information regarding the workings of the plant to outsiders. The rule to debar visitors from entering the premises is at times disregarded by special request, as in the case of the waterways convention just held in Lake Charles. The delegates were permitted to walk through the company's premises and see the magnitude of the plant, but little information can be had at such times. I have been fortunate enough to be able to secure these particulars of the operation of these great

rels of dry paints and 2,500,000 gallons of ready-mixed paints annually. Drying, crushing, pulverizing and probably bolting will be the operations in the dry mill, and ready-mixed paint will be the output of the wet mill. An electric plant will be installed for lighting the buildings and a steam plant for heating them. Another department will be the cooorage for manufacturing barrels and kegs especially for the dry-paint output. As the company intends to advertise extensively, it will install its own printing plant for publishing purposes. While the manufacturing plant will be located at Chattanooga, the raw materials will be obtained from a tract of land located 53 miles from the city, containing large deposits of oxide of iron, silicate of iron, aluminum and dioxide of manganese. This material will produce the greater part of the dry paints and be the basis for a large part of the ready-mixed paints. Six and a-half acres of land will afford the site for this enterprise, located just outside of the city of Chattanooga. Construction work will be in charge of H. V. Stapleton, superintendent for the company, of Sandusky, Ohio, who will be permanently located in Chattanooga after June 1. Mr. Myers, the general manager, of Lebanon, Ind., will also be permanently located in Chattanooga after June 1. They will be in the market for all kinds of machinery required for this plant.

HARDWARE IN THE TERRITORIES

Plans for a Big July Meeting in Oklahoma City.

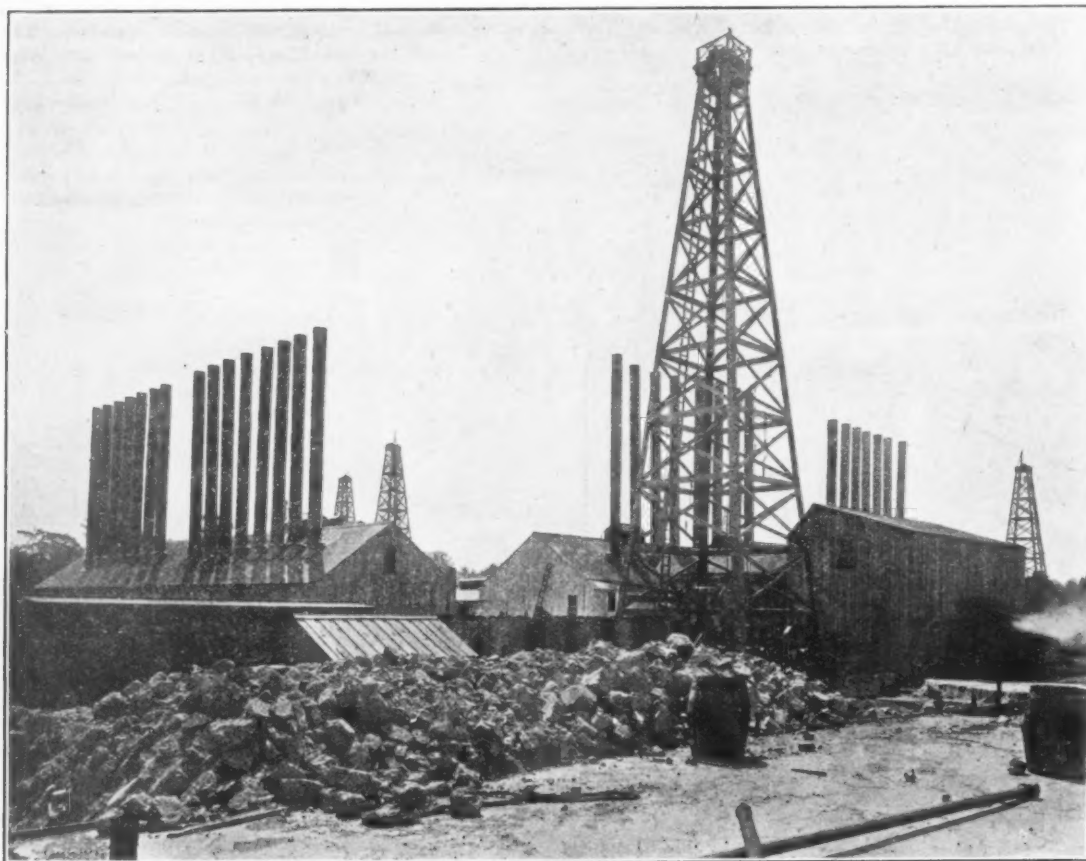
Mr. J. H. Johnston of Oklahoma City, Okla., secretary of the Retail Hardware, Implement and Vehicle Dealers' Association of Indian and Oklahoma Territories, in a letter to the MANUFACTURERS' RECORD enclosing the official call for the association's third annual convention, to be held in Oklahoma City July 10, says:

"Owing to the increase in the number of subjects to be discussed and the interest manifested by the dealers in general, as well as our desire to see that all visitors have a real good time in a real live city, we will have a three days' session instead of two days. We have secured a commodious building, well located, where free space will be furnished to jobbers and manufacturers for display of their goods. From the favorable comments made by visitors last year on the few attractive displays placed in stores by some enterprising manufacturers, we are assured that our exhibit hall this year will afford a splendid opportunity for demonstrating the quality and sale value of many lines of goods.

"In addition to the addresses there will be interesting and instructive discussions led by men who are well posted on the subjects they have chosen to take up. Among the questions of importance will be insurance, organization of local clubs, advertising, credits and collections, and Mr. A. W. McKeand, secretary of the Chamber of Commerce, with other practical business men, will submit a plan for the solution of the catalogue-house proposition.

"A series of follow-up letters is being sent to all the dealers in the two Territories, so that they will be kept reminded of the time of the meeting and also advised of the important matters to be brought up. We are also calling for questions relating to local conditions, and these will be discussed for the benefit of all who attend.

"The Oklahoma City Hardware and Manufacturers' Club will work in conjunction with the arrangement committee, and will assist in making this a pleasant as well as an eventful gathering.



TWO OF THE STEAM PLANTS AT SULPHUR.

casion of the Bankers' Convention, held in April at Lake Charles, is quoted as having said:

"In spite of my high-price labor here against their cheap peasant labor in Sicily, and with a \$4 freight rate to New York against their \$2 water rate to New York, I am producing two-thirds of the sulphur of the world and making them store their sulphur in Sicily, and when I get those five new wells finished and that new battery of 20 boilers running, with your half-million barrels of oil, I will produce all of the sulphur of the markets of the world."

The value of Frasch's patent, as well as the inexhaustible source of sulphur supply at the works, is here made apparent. So important is this undertaking and so large the profits that the company is concentrating all its energies on sulphur, and is not developing the less valuable oil, which is also available on its grounds in abundance.

As Manager Frasch has said, the work of increasing the capacity of this great plant is being pushed rapidly. The latest

each battery of 20 boilers is operated by but two firemen and two water attendants. Their jobs, too, may be designated as sinecures, as probably three-fourths of the time they have nothing to do excepting to occasionally turn an oil valve to increase or decrease the volume of oil being discharged beneath the boilers. Scores of great smokestacks stand out against the sky at six or seven locations over the works, which carry off into the higher atmosphere the smoke and gaseous matter formed under the boilers.

A train of tank cars loaded with fuel oil is unloaded at one time in the center of the grounds. The oil is pumped out of the tank cars into a great basin formed in the earth by clay embankments, dimensions being 100x100 feet, from which the oil is pumped to the various supply tanks over the premises and adjoining each battery of boilers. Everything is constructed to work automatically and with a view to saving labor. There are about 700 men on the company's pay-roll.

The Abernathy water jet, probably 100 in number, are used for the purpose of

works, which now control the sulphur trade of the world. JOHN BANNON.

Paint Works for Chattanooga.

That Chattanooga, Tenn., will have another important manufacturing industry is seen in authoritative advices which the MANUFACTURERS' RECORD has received in regard to a big paint plant to be established in that city. This enterprise will be built and operated by the American Tri-Metallic Paint Co., which has been organized with H. Walter Doty of Findlay, Ohio, as president and Eli Myers of Lebanon, Ind., general manager. The company will expend about \$150,000 this year. Its main buildings will include a structure 36x132 feet; two buildings, 36x140 feet, four stories high, including basement, the latter to be built of solid concrete walls and above the basement to be built of concrete blocks. There will also be erected an office building, boiler and engine room and other structures. The mechanical equipment will include two self-stoking boilers of at least 150 horse-power each; machinery for manufacturing 30,000 bar-

AWAKENING TO KENTUCKY'S POSSIBILITIES.

By ALBERT PHENIX.

[Written for the Manufacturers' Record.]

Notable among the events of the year in the South, unique in all the history of convocations, conventions, assemblages and the gathering together of many peoples, will be the Kentucky homecoming festival, to which Louisville will give absorbing and well-nigh exclusive attention during the days and nights of June 13-17. Committees on entertainment and program have been giving months to the perfection of the plans for this remarkable occasion, and responses from the vast number of former Kentuckians scattered throughout the Union and the world abroad give assurances that a great multitude of Kentucky's absent sons and daughters will be on hand at this jubilee. All over the land "My Old Kentucky Home" is being sung with a new fervor, and the thoughts of former Kentuckians and of their children's children are turning to the mother State as they have not in years.

There are nearly 500,000 native-born Kentuckians now living in other States of the Union, and they and their descendants will doubtless aggregate more than 2,000,000 Americans to whom this homecoming festival will directly appeal. From among this number there will be drawn a crowd so great as must put to the test the capacity for that hospitable entertainment which is so conspicuous a characteristic of Kentucky's metropolis. It will be a great and a remarkable gathering, for it will include men who have carved out careers for themselves that have brought honors of the highest sort, giving pre-eminence in statecraft, finance, commerce, the law, the arts and the crafts. Louisville shows a thorough appreciation of the responsibilities of hostess for such an occasion, and has completed preparations for entertainment in keeping with the company and the time.

On the program there have been days set apart to various phases of the jubilee and reunion spirit, one of the notable ones being a Stephen W. Foster Day, in honor of the composer of "My Old Kentucky Home" and that other immortal, "The Swanee River," and the celebration winds up with special devotions in the churches of Louisville on Sunday, the 17th.

Outside the social features of the occasion, the sentimental side and the gratification which it will bring to visitor and visited to gather together in reunion on Kentucky soil, there will undoubtedly be a practical side to this homecoming, which, if it does not result in extensive removals back to the old home State, must start forth a band of enthusiastic evangelists who will sing the praises of Kentucky wherever they go and spread her fame in alluring terms abroad. For the sun shines particularly bright on the old Kentucky home in early June, and never does she hold a greater charm. And in whatever direction the visitor may turn there will be seen greater opportunity for profitable enterprise than was ever before apparent in the history of the State. Although there has been more phenomenal development in many other States than Kentucky has shown during the past 40 years, yet in a large part of the State there had been a conspicuous degree of development before that time, so that for generations portions of Kentucky have been ideally comfortable and desirable as a place to live. Now, however, there is a new conception of the greater destinies in store for the State—destinies which will make her as great in industry and commerce as she has been notable for belles and beaux, homes and horseflesh. It is seen by even

her own people, and is especially apprehended by the student of conditions from the outside, that Kentucky combines a wealth of resource, with advantageous location, such as almost no other State of the Union enjoys. In her hills are many million tons of the finest coals, and she has other vast fields of oil and gas, as well as great stores of various valuable minerals, and stretches of timber lands nowhere excelled. Running right up to these wealth-laden hills are valleys and plains of the finest agricultural lands the country contains, so that in industrially developing the State Kentucky can at the same time raise the foodstuffs the populous centers will require.

So conspicuous is the advantage Kentucky enjoys in this respect that in discussing the possibilities there it has been declared that no other State in the Union is so qualified and equipped by nature to become a second Pennsylvania as is Kentucky. No other State, with such a wealth of coal, oil, gas, timber and numerous minerals, clay and stone, has so great an area of agricultural lands of the finest class, while added to these advantages are a location central and accessible geographically, and having more miles of navigable waterways than any other State in the Union. Bordering on the Mississippi, and

fronting on the Ohio for nearly two-thirds of that river's entire course, there are other navigable rivers within the borders of the State that make Kentucky singularly and conspicuously favored in this important regard.

With already numerous and important trunk-line railroads traversing the State, other roads are in process of construction and in prospect, having in view the complete opening to development of every portion of the State.

Local and outside capital is interested in the development of Kentucky's resources as never before, and some of the enterprises under way are of the first magnitude. There is an awakening to Kentucky possibilities such as has not been seen since the days of Boone, and a progress is perceptible that includes the whole State.

There is much remaining to be done before the hill lands have reached the development the bluegrass section has so long enjoyed. A fair start only has been made in that desirable direction. The homecoming festival will serve to acquaint the visitors with the conditions of today, and should enlist their interest and co-operation. As Kentuckians have borne a leading part in the development of every section where they have located, and have particularly helped to make great every State to the north and west of their own old home, their assistance now in pushing Kentucky to the front would be an aid as powerful as it would be timely.

ORGANIZED FOR AN INLAND WATERWAY.

[Special Correspondence Manufacturers' Record.]

Lake Charles, La., May 25.

The Interstate Inland Waterway Convention, held in Lake Charles, La., this week, from the standpoint of numbers in attendance, as well as from the importance of the proceedings, proved eminently successful. Due to its labors, the first practical step has been taken to connect directly Brownsville, Texas, and Donaldsonville, La.

The advantages which Texas and Louisiana will derive from the linking of the Rio Grande with the Mississippi are so great in number and of a character so beneficial and of such transcendent importance that the human mind cannot at this time grasp an approximate idea of their marvelous possibilities and supreme significance.

With the consummation of this project, for the accomplishment of which a permanent organization has now been established by the convention, it will be possible, on the completion of other projects of a similar character, to ship goods by water without breaking bulk over an inland waterway from New York city to the land of the Montezumas. It is proposed to apply the principles which have transformed struggling villages of but a few years ago to mighty centers of commerce and manufacture, Cleveland and Pittsburgh, for illustration, to the towns and cities along the proposed inland waterway between Donaldsonville, La., and Brownsville, Texas.

Practical illustrations of the feasibility of pushing the construction of the proposed intercoastal waterway to a successful conclusion were furnished the convention delegates by scientific men who have given their time and ability to an exhaustive study of the question. To perfect their proposed great system an appropriation from the federal government of, say, \$6,000,000 is needed. Appropriations of much greater amount have been freely voted by the nation's legislators for less meritorious undertakings.

It is desirable that the depth of the

proposed waterway should not be less than nine feet, and 100 feet wide. A six-foot canal as proposed will restrict the volume of freight shipments to light-draught navigation. By increasing the depth to nine feet, coal, iron and other products can be shipped direct from Pennsylvania, Michigan and other Northern States in unbroken bulk shipments, not only through the thousands of miles from the navigable sources of the Mississippi, its tributaries and proposed waterway connections, but also along those of Louisiana and Texas, which include the Brazos, Guadalupe, Colorado, San Antonio and Buffalo bayou waters of Texas. By this means Waco, Austin, Dallas, Houston and other important industrial centers in Texas and Louisiana will be in direct inland water connection on a scale which will permit of cargo shipments; if necessary, 1000-ton shipments.

An interesting feature of the convention proceedings consisted in the demonstration that a number of the great trunk-line railroads in the past evidenced their lively interest in the deepening and widening of canals and rivers running parallel with their respective lines to the extent of befriending these projects by their powerful support. It was shown that the project of deepening the Mississippi river had no more ardent supporters than the Illinois Central Railroad Co. and the Missouri Pacific Company. The support given the project of deepening the Erie canal from 9 to 12 feet by the New York Central Railroad Co. was also referred to.

The construction of the interstate inland waterway means, in this particular instance, the development of millions of acres of virgin territory inaccessible to railroads. The construction of the canal will open up for navigation contiguous waterways along its route. Trade and commerce will increase in volume to an extent that the railroads will be among the chief participants in the benefits which will naturally accrue.

The position which the people of the

State of New York took when it was decided for the third time to improve the Erie canal was cited as an object-lesson at the convention. The citizens of the Empire State, realizing the great benefit the canal had proved in the past as a factor in placing their State in the proud position of commercial supremacy it enjoys today, determined to brook no delay in the accomplishment of the canal project, and without even referring to the federal government, a bond issue of \$110,000,000 was freely voted by the State for the immediate prosecution of the work.

In the event of delay due to the difficulty of securing from the federal government the desired appropriation, what better investment could the capitalists of Louisiana and Texas desire than returns on bond issues covering this sum? I would ask. The capital needed to obtain the end in view is comparatively small, due to the fact that nature has already accomplished the major portion of the work, the sum named being the means of perfecting it.

The completion of the interstate coastal canal in Texas and Louisiana should be accepted as having a national as distinct from a local character. Not only are the Mississippi and Ohio river States directly interested in this meritorious project, but so also should be States East and West. The importance of carrying the project to a successful ending should be taken up vigorously, not only by congressmen from the States of Louisiana and Texas, but also of those of the States of the Mississippi and Ohio valleys. The rivers and harbors committee, the members of which are largely composed of congressmen from these States, will be expected to leave nothing undone in bringing the proposition before Congress. Their advocacy of the plan, backed by earnest clients and persistently maintained, means success.

Practical steps should be taken at the earliest date to provide sufficient funds for the preliminary work, so that a commencement can be made with as little delay as possible.

The recommendation of the committee on organization of the Interstate Waterway League, the designation the Lake Charles convention formally gave to the association, is deserving of special consideration. It is as follows: The committee recommends that in order to interest each and every community so affected by this proposed canal a local committeeman from each parish or county so interested be chosen by the delegates from said parish or county, and that the said local committeeman, in conjunction with the executive committee, choose a local board to promote the interests of this canal in each parish or county, secure funds and collect statistics for use in promoting the interests of this canal, said local board to consist of not less than three members.

Each board of trade, business league, committee, club or similar organization in the district touched by or adjacent to the proposed canal is requested to use every means in its power to advance the interests of the common project, keeping in close touch with the executive committee.

JOHN BANNON.

Mr. J. J. Hassell, 123 California street, San Francisco, expert accountant, who has been a resident of that city for 35 years, has decided to establish an agency for building supplies and specialties, and wishes to correspond with manufacturers who desire representation in San Francisco.

The natural and acquired advantages of Mobile, Ala., are set forth in an illustrated pamphlet published by the Commercial Club of that city.

In the past year the steam railroads of the country used 84,400,000 cross-ties.

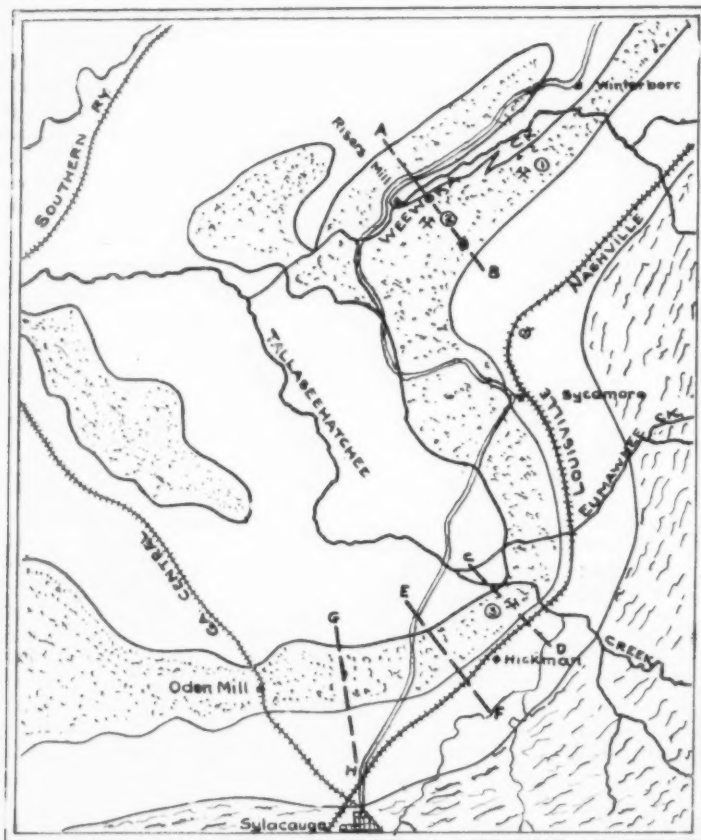
The Gray Ores, or Siliceous Hematites, of Alabama.

By JOHN SHARSHALL GRASTY, Johns Hopkins University.

[Written for the Manufacturers' Record.]

The exploitation and development of the stratified siliceous hematites of Talladega county in Alabama may mean to the furnaces of the eastern portion of that State as much or more than the discovery and utilization of the Lake Superior ores meant to the iron and steel industries of

to change it, although as a matter of fact they are hematites pure and simple, except where metamorphosed into magnetites. This so-called "gray ore" occurs in the Weisner quartzite. Broadly speaking, this mountain-making formation extends from Winterboro, 10 miles south of the



WEISNER-QUARTZITE KNOX DOLOMITE CRYSTALLINES
MAP OF GRAY-ORE DISTRICTS OF TALLADEGA COUNTY, ALABAMA.
Scale, two miles to the inch.

Pittsburg; in fact, the proving out of these great beds has more than a local significance. For, while there are beyond peradventure many hundred millions of tons of calcareous red ores in the State of Alabama, for some years there has been a threatened famine in good siliceous ores, so desirable for mixing with these "limy" ores which constitute the mainstay of the fast-growing iron and steel industry of the region now generally known as the Birmingham district.

There are two distinct districts in Talladega county within which these ore bodies occur in stratified form and of a quality suitable for the requirements just indicated. These are both embraced within the area shown on the accompanying map, and together constitute what is probably the largest sedimentary ore deposit of Cambrian age in the United States.

The existence of these deposits has long been known, but their value has but recently been demonstrated. They were overlooked and ignored largely because, being neither "red" nor "brown," they were outside of the category of what had been tried in the Alabama furnaces, and so failed to meet with the approbation of the practical miners who in the early days of Alabama's development were at once the geological and metallurgical "experts" of that section. Moreover, their resemblance in color to titaniferous magnetites of other regions caused them to be put in that class. Through ignorance of their true type and character these deposits were called "gray" ores, and the name has stuck. It may be as well not to try

city of Talladega, in a southerly direction to Tallaseehatchee creek, and thence westwardly till it broadens out into the Katchee and Katala mountains. In this ridge with many local names, which may for convenience be called the quartzite ridge, the "gray ore" is continuous, but varies in thickness, quality and in the number of its beds. Within the limits of our map, however, lie the two districts of main commercial importance. These may be designated as the Tallaseehatchee and the Weewoka creek districts. The Tallaseehatchee district extends from where the creek of that name cuts through the quartzite ridge (there known as Jenks mountain) to where the road from Sylacauga to Sycamore crosses that ridge to the west of Hickman (Oldfield) station. It extends northward from Tallaseehatchee creek to where this same road again cuts through the ridge near the village of Sycamore. The eastern as well as the western boundary of this district is the line of contact of the Knox dolomite and the Weisner quartzite, the latter having been thrust up and through the former throughout the area carrying these ores. Like the Tallaseehatchee, the Weewoka creek district embraces the area within which the quartzite has been pushed up through the dolomite, between the Louisville & Nashville Railroad and Weewoka creek. It extends southwest from Winterboro to the gap in the ridge through which passes the road from Sycamore to Riser's mill. Two parallel mountains, the Riser and the Heacock, into which this continuous quartzite ridge is here divided, stand

out as the striking topographic features of this Weewoka creek district. The Riser mountain carries two and the Heacock three persistent beds of ore. This variation in the number of beds is due to the difference in the extent of the throw of the faults by which both these mountains were upheaved.

The first development of consequence in this region was made by the Gray Ore Iron Co., which is mining at Tallaseehatchee creek and shipping to Gadsden, Ironaton and Shelby several hundred tons a day—an output which is being constantly increased. This mine is situated in the center of the Tallaseehatchee district.

During the past four months the Weewoka creek district, much of which has lately been purchased by Mr. Douglas H. Gordon of Baltimore and associates, has been opened up under the direction of Charles Catlett, the eminent economic geologist of Staunton, Va. It was as Mr. Catlett's assistant in this work that the writer made a reconnaissance of the entire "gray-ore" region as far south and west as the Katala mountains, making a special study of its structural and areal geology with a view to locating, if possible, other ore bodies of commercial value. And it is the writer's intention to pursue these investigations still further and give the result in a monograph on the entire area in which these ores occur. Only within the districts above mentioned, however, have they so far been found in sufficient quantity and

The force which thrust the crystalline rocks on the Knox dolomite produced the faulting of the Weisner quartzite which brought these ores to the surface. The throw of this fault varies from 500 to 1000 or more feet. In certain localities where there was least tension overturned anticlinal folds resulted. Along the line E—F (see map), a structural section would, on account of an overturn, show six beds of ore, but along the line C—D, where the tension was greater, the fold was broken and the fault structure with its three veins of ore appears. A section along G—H would show a fold in the quartzite culminating in a fault—a combination of the two forms of structure just mentioned. A section along the line A—B would show the series of faults which has brought up the Weisner quartzite in the Heacock and the Riser mountains with synclinal valleys of Knox dolomite between. The Weisner dips to the east and the ridge is steeper on its western side. Being more resistant than the dolomite, it has more successfully withstood weathering, so that a more or less prominent escarpment marks the fault line. So prominently do these quartzite ridges stand out that the geologist may with approximate accuracy map in the formations from the topography alone.

Of the three beds of ore that are persistent throughout this formation, the two lower outcrops on the western side of the mountain, which has been designated as the Weisner ridge. The highest, strati-



No. 1.—STRATIFIED BED OF GRAY ORE THREE FEET THICK.
This is the top bed on Heacock Mountain.

of a quality high enough to make them worth developing. Even in the intervening space between the two districts named (i. e., the Tallaseehatchee and the Weewoka creek) the ore beds, while persistent, are lean in their metallic content. Beyond the Tallaseehatchee district toward the Katala mountains the beds have been traced, but are so highly siliceous as to have little or no economic value. Therefore, this article will be confined principally to the two districts in which the good ore occurs in large quantity.

graphically, of the three is usually found just east of the crest of the ridge. The two top beds carry a much higher content of iron than the lowest one. The thickness of the ore beds shows at times sudden and unexpected variations, often within a few hundred yards more than doubling in thickness. This would be a serious drawback to mining but for the fact that these beds at their thinnest (at least within the boundaries of the exploited sections of both districts) are of workable dimensions. For example, on Jenks mountain,

where the Gray Ore Iron Co. is operating, the middle bed shows within a distance of

cent. in iron, while a sample apparently similar in all respects except as to the de-



No. 2.—THIS BED OUTCROPS ON THE EAST SIDE OF JENKS MOUNTAIN ON THE PROPERTY OF THE GRAY ORE IRON CO.

Of the three beds of ore this is stratigraphically the highest, and it is here 12 feet thick.

500 feet an increase in thickness from 15 feet to more than 40. There is likewise a thickening in the other beds, but not so striking as in the middle one. On Riser mountain a 12-foot bed thickens to 20 feet within 100 yards. On Jenks mountain the beds are dipping to the eastward at an angle close to 40 degrees. It should have been previously stated that the angle of dip of this formation (Weisner quartzite) shows a gradual decrease from the Wewoka creek district to the southward. The top bed on Heacock's mountain, which is shown in illustration No. 1, though apparently almost vertical, is dipping 60 degrees to the east. Opposite Hickman's station the beds dip at an angle close to 35 degrees, and in the same general direction. In both districts, however, the average dip is sufficiently steep to justify stopping in the mine.

The presence of a very small and insignificant quantity of titanium in these ores has had the effect of confirming local belief in the earlier stories based on miners' impressions, that this ore was of igneous and not of sedimentary origin. There has, however, been found indisputable evidence that this is a stratified deposit. The ore was originally laid down, as pointed out by Mr. W. F. Prouty, now assistant State geologist of Alabama, either as a carbonate or as an oxide, into which was brought during the period of deposition comparatively small amounts of titanium and of magnetite derived from some pre-Cambrian mass of titaniferous ores. To determine these questions the writer took pains to examine under the microscope petrographic slides of these ores, and found titanium in but a single one among more than a dozen slides taken from various points along the strike in both districts. In the slides made of the ore occurring on Heacock mountain, over 90 per cent. of the iron content was in the form of red hematite. The magnetite that was present seemed to be a metamorphosed product of this hematite. Other slides, however, made from specimens taken at Tallaschatchee creek contained a greater percentage of magnetite than of hematite, and in these there appeared an increased percentage of silica. Thus it was shown that there has been more metamorphism in the Tallaschatchee than in the Wewoka creek district, and it is a noticeable fact that where there is least metamorphism there is a higher percentage of metallic iron. A sample from Heacock mountain that was but partially metamorphosed ran over 55 per

cent. in iron, while a sample apparently similar in all respects except as to the de-



THE TOP BED ON RISER MOUNTAIN.

At this point it is 14 feet thick and analyzes over 46 per cent. in metallic iron.

were superinduced by the friction of the fault furnished the necessary conditions for the reduction of the original sedimentary deposits to the form of magnetite. It cannot, therefore, be concluded that all magnetites are of igneous origin in the sense in which that term is commonly employed.

It is a curious fact that at various places in the ore leads in both these districts, but especially so in the Wewoka, there are found in juxtaposition layers of soft and hard ore. The former is frequently soft enough to bury a hatchet in, and the latter so hard that but for its abundant lines of cleavage it would be difficult to mine. This condition has not been satisfactorily explained, except on the theory that the soft ore has been least metamorphosed and is nearer to its original condition, while the harder layers have been converted more or less into magnetite. There are those who claim that the soft ore is the result of leaching and oxidization, but this theory is controverted by the fact that the hard layers usually cap the beds in which both kinds occur, and would, therefore, be the first to succumb to atmospheric influences. If the theory that this softness is due to incomplete metamorphosis be sound, then

these soft layers may be expected to continue soft indefinitely down the dip.

When it is remembered that the average content of iron found in the ores of the two districts is considerably over 45 per cent., whereas the average of the bulk of the fossiliferous ore of Red mountain is barely over 35 per cent., it is seen that with respect to quality these ores ought to fulfill the requirements of the furnaces of the district in which they will be used. Large quantities of the ore, however, run much higher than 45 per cent. Complete analyses were made of samples taken from the two highest beds on Heacock mountain, and both ran over 55 per cent. in iron. The samples from the top bed analyzed as follows:

Silica.....	15.29 per cent.
Titanic oxide.....	1.18 "
Iron.....	66.31 "
Alumina.....	3.26 "
Calcium oxide.....	1.26 "
Magnesia.....	None.
Arsenic.....	0.31 "
Phosphorus.....	0.12 "
Potash.....	Trace.

Of the other analyses of samples from this same bed, the one that gave the lowest iron content ran 52.74 per cent. iron and 15.44 per cent. silica. This top bed at the surface is slightly over three feet thick. But going 12 feet down the slope this bed was found to be nearly six feet thick. This is due probably to local thickening, though it may be that it is characteristic

average thickness slightly over 3½ feet. Analysis No. 1 was made by Dr. C. Glaser of Baltimore, Md. In commenting on his complete analysis he said: "This iron is mostly in the form of oxide (Fe₂O₃), i. e., hematite, and it is very fine for smelting with calcareous rock." He might also have added that this sample shows an ore of Bessemer grade.

No. 1.	
Iron.....	54.95 per cent.
Silica.....	16.26 "
Alumina.....	2.90 "
Calcium oxide.....	0.98 "
Titanic oxide.....	0.40 "
Magnesia.....	None.
Arsenic.....	0.17 "
Potash.....	Trace.
Phosphorus.....	0.013 "

No. 2.	
Iron.....	47.85 per cent.
Silica.....	22.34 "

No. 3.	
Iron.....	53.76 per cent.
Silica.....	14.10 "

No. 4.	
Iron.....	47.79 per cent.
Silica.....	22.20 "

An analysis made of the Heacock mountain ore and reported by the Alabama Geological Survey (the sample having been selected by the late Major Fitzhugh, for a long time the geologist of the Louisville & Nashville Railroad Co.), is given below:

Silica.....	17.35 per cent.
Metallic iron.....	61.91 "
Manganese.....	0.20 "
Alumina.....	4.78 "
Lime.....	0.080 "
Sulphur.....	Trace.
Phosphorus.....	0.30 "
Titanium.....	0.10 "
Water.....	0.10 "

The following analyses were made from mixtures of samples taken from all along the strike of the two top beds outcropping on Heacock's mountain:

No. 1.	
Iron.....	53.55 per cent.
Phosphorus.....	0.219 "
Silica.....	15.14 "

No. 2.	
Iron.....	50.45 per cent.
Phosphorus.....	0.288 "
Silica.....	19.58 "

No. 3.	
Iron.....	50.70 per cent.
Phosphorus.....	0.284 "
Silica.....	18.94 "

Average of all samples, 51.56 per cent. iron.

Other analyses might be cited to show the good quality of the ore. It was not the question of the ore's quality, however, that retarded development on Heacock's mountain. The fact that there occurred a Z-shaped buckle in each of the three parallel beds caused the local experts to pronounce it "very much faulted." It is but fair to them to say, however, that they were not aware that such a buckle existed, though it might have been found, as it was later, by prospecting at the right place. This is a striking illustration of how money may be wasted when expended on

of the bed throughout its whole extent. The analyses given below were made of



TWENTY-FOOT BED ON RISER MOUNTAIN.

samples taken at various points along strike of the middle bed, which has an ore deposits under other than expert direction. The following diagram shows the

conditions at this particular place as Mr. Catlett found them:

No. 1.
A ————— B 0.00
0.00 C ————— D

A—B and C—D represent two apparently separate and distinct beds of ore.

bed, which here is $4\frac{1}{2}$ feet thick, carries 47.02 per cent. of metallic iron and 24.18 per cent. of silica. The upper bed is $5\frac{1}{2}$ feet thick, and analyzed 44.14 per cent. iron, silica 29.10 per cent.

As a mining proposition, these ores are free from any serious difficulties. On

top and bottom walls, all make for inexpensive operation.

In this connection it should be remarked that though when the first slope was driven on Eumawhee creek, in the Tallaseehatchee district, the ore was found to be so hard as to make mining rather more

ern end of Jenks mountain at a cost as low, if not a little lower than the average of the Birmingham district.

The ores in the Tallaseehatchee district, though not quite so high in metallic iron as those further north, occur in great quantity. It is to be regretted that sys-



END OF JENKS MOUNTAIN FROM TIPPLE OF GRAY ORE IRON CO.

Openings had been made at 0.00 without finding the ore, which led to the conclusion that the ore had been faulted out. Under Mr. Catlett's direction openings between C and B (see diagram No. 2) disclosed the continuity of a single bed, cross-folded or buckled at this point:

No. 2.
A ————— B
C ————— D

The discovery of the bed between C and D completely solved this bothersome structure problem and dissipated the theory that the ore was either "badly broken up" or "faulted out," a theory which, to use a local phrase, had given the property "a bad black eye."

Opposite Riser's mill, or Riser mountain, the higher of the two beds of ore has a thickness of over 20 feet. Immediately below it there is another and softer bed of ore, which is eight feet thick. Two samples from the former analyzed as follows:

	Iron. Per ct.	Silica. Per ct.
No. 1.....	45.30	24.40
No. 2.....	44.98	24.00

Analyses of the softer bed gave:

	Iron. Per ct.	Silica. Per ct.
No. 1.....	45.19	21.64
No. 2.....	46.66	20.82

At the southwestern end of the same mountain, and to the east of the ford of the road from Riser's mill to Sycamore, a mile southwest from the mill, samples were taken from the lower of the two beds and were analyzed for silica, alumina and iron. They contained:

	Iron. Per ct.	Silica. Per ct.	Alumina. Per ct.
No. 1.....	44.52	25.44	3.25
No. 2.....	46.30	25.60	3.89
No. 3.....	45.55	28.10	2.43

Beginning at the southwestern end of Riser mountain the strike of the ore beds turns to the southeastward in the direction of Sycamore. Half a mile from the turning-point other samples were taken that analyzed:

	Iron. Per ct.	Silica. Per ct.
No. 1.....	44.71	27.74
No. 2.....	42.71	28.40

Samples were again taken half a mile still further along the strike. The lower

Heacock and Riser mountains a very large tonnage may be won by stoping, and on the latter considerable quantities by open-cut work. A large percentage of ore

costly than in the generality of red-ore mines, and subsequently when open-cut operations were begun on the Tallaseehatchee it was found that a large amount



OPEN-CUT WORK PREPARATORY TO ENTRY TO 40-FOOT VEIN NOW BEING MINED BY THE GRAY ORE IRON CO.

This photograph shows the two lower beds of the series.

occurs very soft. This can be loosened easily with a pick, which, taken in connection with the cleavage planes within a few inches of one another throughout the harder ore bodies, the firm and well-defined

of work had to be done before the main veins were reached. But from now on there is no reason why a very large output may not be taken from the 40-foot vein on the Gray Ore Iron Co.'s property at the north-

tematic prospecting has been carried but a short distance to the southwest of the area within which mining is now being done on Jenks mountain, inasmuch as it would be interesting to see how far the middle bed on that property maintains its present unusual thickness. One bed has been traced from the Eumawhee to the Tallaseehatchee creek, and has increased in thickness within a mile from 8 feet to 12 (see illustration No. 2) near the tipple of the going mine. This 12-foot bed is geologically the highest of the three which occur in this area. Analyses found in a report on this property made for Mr. M. H. Smith, president of the Louisville & Nashville Railroad, by Col. R. H. Elliott, show the following contents:

No. 1.	
Moisture.....	0.23 per cent.
Potash.....	1.56 "
Titanic oxide.....	0.38 "
Silica.....	22.31 "
Metallic iron.....	51.99 "
Phosphorus.....	0.13 "
Sulphur.....	0.12 "

No. 2.	
Moisture.....	0.25 per cent.
Potash.....	2.58 "
Titanic oxide.....	0.14 "
Silica.....	29.72 "
Metallic iron.....	44.43 "
Phosphorus.....	0.09 "
Sulphur.....	0.07 "

No. 3.	
Moisture.....	0.25 per cent.
Potash.....	1.24 "
Titanic oxide.....	1.00 "
Silica.....	23.60 "
Metallic iron.....	50.28 "
Phosphorus.....	0.15 "
Sulphur.....	0.07 "

No. 4.	
Moisture.....	0.35 per cent.
Potash.....	3.93 "
Titanic oxide.....	0.33 "
Silica.....	25.34 "
Metallic iron.....	46.89 "
Phosphorus.....	0.35 "
Sulphur.....	0.03 "

As can be seen from the above analyses, these samples carry about 1 to 3 per cent. of potash. In the opinion of some metallurgists a small percentage of potash increases the fusibility of the ore, and is therefore an advantage. As to the behavior of the ores of the Tallaseehatchee district in the furnace, Col. T. G. Bush, the president of the Alabama Consolidated Coal & Iron Co., states that they are extremely desirable when mixed with the calcareous ores of the Birmingham district, distinctly improving the grade of the iron.

The ores from Wewoka creek have been tried in the Shelby and in the Vanderbilt furnaces. Mr. C. A. Meisner, while superintendent of the latter, after making a test wrote as follows: "We worked from 200 to 250 tons of it in the furnace. It smelts well and gives good strong iron. Analysis shows metallic iron 50 per cent., silica 17 per cent., phosphorus 30 per cent."

The late J. P. Christian, for many years superintendent of the Shelby Iron Co.,

	Lime. Per ct.	Magnesia. Per ct.	Silica. Per ct.
No. 1.....	40.46	9.18	4.56
No. 2.....	30.84	21.68	0.52
No. 3.....	52.34	0.60	2.46

At the outset it was suggested how the utilization of these "gray ores" might have a rehabilitating effect on the iron interests of Eastern Alabama. With iron selling today at \$14 a ton, there stand idle within 50 miles of the gray-ore districts four furnaces, to wit, the Talladega, the Jenifer, and

What is needed is siliceous ore with which to mix and flux them. Dr. Eckel says:

"Next in importance to the Lake district is the Southeastern United States. Here, particularly in East Tennessee, North Alabama and Northeast Georgia, oolitic red hematites or "fossil ores" are extensively mined. These ores range below water-level from 33 to 40 per cent. in metallic iron, but are too high in phosphorus to be of Bessemer grade. They can be delivered at the furnaces at a cost of 80 cents to \$1.10 per ton, a price far lower per unit of iron than any of the lake ores. The extent of these red-ore deposits has been much underestimated by those unfamiliar with the district. In the course of my recent work in Alabama I have made a crude preliminary estimate of the available ore reserve, and think it safe to say that in Alabama alone there are still almost 1,000,000,000 tons of red ore above the 1000-foot level. The total ore reserves of Alabama, Georgia and Tennessee are without doubt far in excess of those of the Lake Superior district. Brown ores occur in the same area, which, with careful washing, may average 48 per cent. metallic iron and sell for \$1.50 to \$2.50 per ton. These brown ores are also siliceous and non-Bessemer, so that the Southern industry has been toward making foundry iron. Open-hearth steel plants are now, however, taking a fair share of the product, and in consequence many furnaces of the Southern United States now run on basic iron exclusively."

With its enormous supply of calcareous ore the Alabama district is now interested

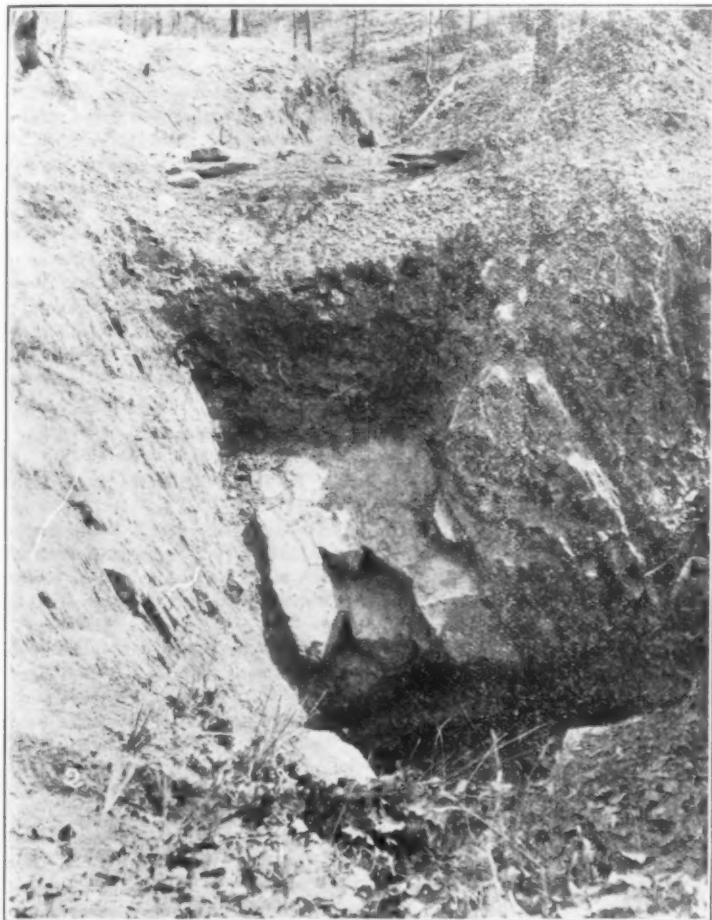
Where There Is No Architect.

Editor Manufacturers' Record:

I often notice in your columns suggestions as to good locations for architects and others. Please allow me to inform you that there is perhaps a better location in the city of Albany for architects than any point in the South. This is a city of 10,000 people that has no architect. There is nothing like a building boom on here, but between 40 and 50 pieces of residence property are being improved, residences ranging anywhere from \$2000 to \$8000 and \$10,000 being erected.

The demand for mercantile buildings and office room is unprecedented. At present the Business League has inquiries on its files from more than 25 business men desiring locations at this point, but there is not a foot of vacant store space in the city. Our money is well invested, being rapidly turned over and netting a greater profit than it would if invested in building. However, outside capital is gradually entering and the building keeps up.

We have under discussion with the Board of directors of the Business League the question of organizing a development company to relieve the restrictions which are indicated by the above. The fact is we have reached the point where we cannot grow any more in any direction without more buildings. Obviously, if an architect were on the ground all the time to suggest ways and means and furnish estimates as the thought of building occurs to local capitalists, the desire for



TOP BED OF ORE ON HEACOCK MOUNTAIN.

Twelve feet down slope, where it is six feet thick and analyzes over 50 per cent. iron.

wrote as follows: "The furnace test was perfectly satisfactory to us. Ore smelted easily. Iron was strong; good fracture; good chill; very fluid. Analysis good. For charcoal iron it was a little high in phosphorus and a little low in manganese. For coke iron, in my opinion, there is no better ore in the State."

Mr. John Dowling, for many years superintendent of the Tennessee Coal & Iron Co.'s five furnaces at Bessemer, after examining the analyses of the ores of the Talladega district, said: "I consider the ores mentioned very good, as the phosphorus and sulphur are extremely low and the average per cent. of iron high. The silica is also a little high, but this is no great detriment. I have no doubt but that these ores would give perfect satisfaction in the blast furnaces, used as a mixture or by themselves."

Mr. Dowling is now in charge of the Lacy-Buek Company's furnace at Trussville and the new furnace at Chattanooga owned by the same interests. He is and has been for many years admittedly one of the foremost furnace managers of the Birmingham district.

If a furnace should be built to smelt these ores on the spot the Knox dolomite, occurring in contiguity to the ore-bearing strata, might provide a suitable flux. Samples of these dolomitic limestones were taken, two (1 and 2) from near Hickman's and one (3) from the north side of the Weisner ridge just east from where the road from Sylacauga crosses it. The analyses showed—

the two at Anniston. The limonite pockets, which occur in spots over all the region between the Coosa river and the Georgia line and within the limits of our map along the contact of the Weisner quartzite and Knox dolomite, were at one time talked about as practically inexhaustible, and it was with this idea that these furnaces were built. But with the passing of the charcoal furnace and the erection of the modern blast furnace and the substitution of coke for charcoal the brown-ore deposits of this section were soon seen to be wholly inadequate, and the four furnaces above mentioned have, for lack of raw materials, been forced to shut down. The furnaces of the Alabama Consolidated Coal & Iron Co. at Gadsden and at Ironaton are now requiring the entire present output of the Gray Ore Iron Co.'s mine except that which is shipped to Shelby to supplement their brown ore.

The "limy" or fossiliferous ores of Red mountain were from the earliest development of the Birmingham district mixed with limonites or brown ores in order to obtain a more fluxible burden and a better grade of pig. When the limonites became scarcer the soft (leached) red ores were used as a substitute so long as they lasted. Today, however, these siliceous or brown ores are found only as a few small isolated remnants. As has been pointed out by Dr. Edwin C. Eckel in his article on the "Conditions in the American Iron Industry" in the January number of the *Engineering Magazine*, the calcareous ores occur in Alabama in very large quantity.



STRATIFIED BED OF GRAY ORE 11 FEET THICK—WEEWOKA DISTRICT.

in finding a suitable siliceous ore to serve as a mixture. Prior to the opening up of these "gray ores" no sufficient quantity was in sight anywhere. In this way the importance of this new source of ore supply to the iron and steel interest of the South is apparent. More than that, its importance becomes national and international, strengthening, as it does, the position of Alabama as one of the world's main centers of iron and steel production.

building would be fostered and "the great idea of expense" would be founded on something more definite than it is at present.

Kindly put your correspondents in touch with the situation and give me at some time the name and address of an architect who would be interested in such a location.

JOHN A. BETJEMAN,
Secretary Albany Business League.
Albany, Ga.

FLORIDA PEAT FOR FUEL.

By ROBERT RANSON.

A question that confronts us from a Florida standpoint is to obtain an economical fuel with which to produce the necessary gas for the producer plant. Here we are confronted with a surprise as to the capabilities of our State, which from time to time gives evidence of having other sources of wealth than climate and oranges. We have in many parts of the State immense deposits of a fine quality of peat which, both in analysis and in practical results, shows a value as fuel of only about 1 per cent. less than lignite coal. There are, of course, many different kinds of peat, just as there are many different kinds of coal, some richer and others poorer in fuel or gas value, but all that I have so far tested give such excellent results and are obtained so cheaply that the question of few units more or less of heat value are not worthy of consideration. I have just received analysis from St. Louis showing the peat to contain 75 per cent. more gas than coal.

In different parts of the United States this question of peat fuel has been much studied in the past five or six years by men of fertile brains, and who saw the great possibilities of a fuel which, though slightly inferior to coal, was obtained without risk to life or limb and at a minimum of the cost. Especially does this peat fuel commend itself to users at a distance from the mines. Great efforts have been put forth to invent machinery to compress fuel to various densities so as to facilitate its transportation, and claims of wide extent are made by the inventors of such machines. To fit the times all inventors of compressed peat advertise it for fuel in the place of coal or wood to produce steam under boilers, and though it shows a remarkable saving over coal in some ways and great desirability on account of its freedom from clinkers, etc., the residue being as light as a cigar ash and easily removed, yet I was convinced from the first study of the matter, extending back to 1899, that it could never reach the popularity it deserved nor wipe out the deep groove that steam had plowed into our mechanical fabric unless some economy could be shown so great by its use as to force itself on the attention of fuel users and show them that their very existence depended on the adoption of the advantages it offered.

I have tried it in various forms and degrees of compression from that of a simple pressed-brick machine up to a density of 10 pounds more to the cubic foot than bituminous coal and about 10 pounds less than anthracite, this latter obtained by very heavy, powerful machines and at a large expense. The lighter pressures being much cheaper, and a pound of peat being equal to a pound of peat whether compressed more or less, the briquette method of comparatively light compression is much to be preferred, and so, starting with this lightly-pressed fuel, or even the loose peat itself uncompressed, dried by air or otherwise, we will proceed to produce gas from it, and by the suction or blast producer methods as before spoken of as showing such enormous economies over the use of the same fuel under steam boilers. So far as I know, I am the first to produce light, heat and power from Florida peat, and demonstrate, even with the crude homemade apparatus at my command, that I can manufacture from peat a gas equal to our city gas for lighting and heating at a slight increase of pressure, and also run an ordinary gas engine for power. This gas being produced at the present time in a hermetically-sealed retort, I obtain, after the most of the gas is

extracted, an excellent quality of coke, which, being free from sulphur of coal coke and having greater heat and lasting qualities than charcoal, has been pronounced by a practical blacksmith to whom I submitted it as the best coal for welding he ever saw, though, on account of the sample I submitted being composed of very small pieces and very light, the blast tended to blow it out of the forge. With this difficulty removed its value for great heats is unquestioned. Mr. J. M. Cheney of Orlando has put into practical operation a plant for briquetting peat and uses it under his steam boilers at the Orlando Electric Light Works. This will entitle him to a debt of gratitude for all time, and his investment of somewhere in the neighborhood of \$10,000 proves his confidence in this to Florida's new source of fuel.

From a personal examination of his works and peat deposits I am convinced of the greater success that subsequent plants will achieve in other locations where better peat is obtainable in larger tracts and under simpler conditions, together with better methods for handling the peat itself, both before and after manufacture, learned by increased study of the matter and by improvements that naturally suggest themselves to the writer and others from observation of Mr. Cheney's plant.

The fact that within comparatively short distance of our most populous towns in Florida, where mechanical power is largely used, we have fuel deposits almost equal to coal in heat value and far preferable in all other ways, would seem to command, for several years past, new admissibly a coal-mine owner. More than once in the past six months coal for steam purposes has been absolutely unobtainable in Florida, on account of lack of transportation and other causes. From newspaper account we are on the verge of another coal strike, and though we may sympathize with those involved, we are reminded that self-preservation is the first law of nature, and that no time is more favorable than the present to develop probably the greatest source of wealth our State possesses outside of our favorable winter climate. Hardly a day passes that does not show to the observing mind some new possibility in peat fuel, and engaged, as I have been, in experimenting with it almost continuously, even with the limited means I command, for several years past new advantages in its use are continually shown me. Thus it will doubtless be the case that before long I may again come before your readers with new and interesting figures and facts on peat gas and its uses.

Columbus' Street-Car System.

Editor Manufacturers' Record:

From time to time I have reported progress as to the building of our street-car system, and now beg to state as a matter of interest to the general public that the initial cars were run over the line today, and that cars will run on regular schedule time beginning tomorrow morning. The writer went over the entire route on the first car this morning, and I state, without fear of contradiction, that the track is one of, if not the finest I have ever been on. We look for great things in the development of our city by the installation of this street-car system.

I. H. SYKES,
Secretary Progressive Union.
Columbus, Miss.

Lime will be manufactured from limestone on Shoal creek, near Joplin, Mo.

FOREIGN LETTERS

The MANUFACTURERS' RECORD is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. Some of these letters indicate the disposition of foreigners to buy American goods, and are therefore of interest to our readers.

Trade With Italy.

C. A. Andriola of A. Giesselmann & Co., Studio Tecnico Industriale, No. 3 Via Goito, Turin, Italy:

"Italy is still a wide-open field for good, practical, reliable machinery and implements of every description like those made in United States. But there are many reasons why we are not looking straight to your land for our wants. Distance deters us from a large business with your country, for it puts us behind time about two months. Goods made in Italy generally are not so fine-looking, simple and practical as those made in the United States, but they cost less money, they are ready on hand, and for these reasons are much preferred. The writer, who has been secretary of the Italian Chamber of Commerce of New York, knows perfectly well you ask prompt payment for any goods sent here, and he knows also that generally Americans sell for cash only, though with liberal discounts. This is not a competing condition in this country. Germans, who are invading our markets, allow a long time to the settlement of bills, and here, of course, their goods are preferred.

"Germans, when wishing to win a market somewhere, establish a stock of their goods here and there, generally in Milan, where so many German people live, and Frenchmen, if the goods are made in France, in Turin. Why could not Americans do the same thing? We understand that heavy machinery could not be stocked abroad, but why are you not allowing liberal conditions, at least, for the first plant? Catalogues, even when made as explanatory and fine-looking as the American are, do not satisfy the people as well as a visit to machinery in working trim. Germany and France are pouring traveling salesmen into Italy by crowds. We don't know of many Americans traveling in Italy. Americans (we mean the largest manufacturers in United States) have thought better to grant to some London or Hamburg firm their general representation for Europe. According to our own point of view, it has probably been a mistake, generally speaking, because a representative, even if he is active and energetic, could never be as interested as the manufacturer himself; beside that, a European agent has to give his activity to different countries by means of several subagents, who work also on commission. All these commissions are consequently added to the original cost of goods sold, and this is the reason why some American products are considered here too expensive.

"Do you want to know the line of goods that would find a ready market? Everything, from the smallest to the largest, providing it is new, cheap and ready for use. Many things, however, are not suited for this market, such as petrol machinery, on account of the heavy duty on petroleum, stuffs like chemicals, supplied us from Germany in enormous quantities, and some other lines. But we want to point out in a very special way a line in which Americans could find the most paying field to work up. Italy, as it is at present, and proportionally to the extent of its territory, is the richest country in the world in waterfalls, both in number and in power for development. We are not a coal-producing country, and we are buying coal from England, France, Germany and Belgium. Now, we are a na-

tion trying to enter the industrial competition of the world with all our effort, our aim and our capital. We think that a power which would do away with steam engines and gain the freedom in industries generally, using as producing power the waterfalls we are so rich in, would be welcome. These means are the electrical machinery, apparatus, implements, adaptations, small and large, for any use. Will some large American firm study these questions? But don't forget that everything sent here must be patented also in Italy.

"Another matter—mines. We are rich in them. We have graphite, carborundum, asbestos, talc, copper, mica and some other material. Many of those mines are worked just enough to keep up the concession from the government, and many others are abandoned. Why not come here, study the matter? You are more enterprising than the Italians in some respects, and it may result in mutual benefit. We may add that we have inquiries about electric-light fixtures of the most modern and stylish pattern. A stock here of agricultural implements would mean a good business."

On the Lookout in Italy.

G. B. Parodi fu Pasquale & Figlio, Genoa, Italy:

"The goods we generally handle for importation into Italy are general hardware, kitchen articles, domestic articles, agricultural implements, novelties and fancy goods. We have already a very extensive clientele for such goods, and are very favorably situated to introduce them largely into our country because we are in almost daily touch with our customers by means of our agents and representatives. We are now dealing with several manufacturers of domestic articles to the United States, with whom we have placed various trial orders and hope to obtain a good trade shortly. But we are still in want of various articles which up to the present we have been unable to procure direct from the makers, among them rotary door bells, fly fans, glass lemon-juice extractors, small bottle-washing machines for family use, horn dressing combs, wooden shoe pegs, wooden toothpicks, cheap alarm clocks, steel locks and latches, water heaters for gas, spirits, oil, etc. For a cheap and simple pattern of water heaters suitable for heating water for baths we are in a position to give orders of hundreds of pieces at a time, but we have not yet found the proper article."

Importing to Japan.

T. Imoto, traveling representative of Iwai Shoten, Osaka, Japan, care William Duff & Co., London, E. C.:

"I am especially interested in paper stock of all kinds, metals, fertilizers, cotton duck, rosin and turpentine, pencils, leather, bromide of potassium and hemp duck. Some American goods which could not compete with England several months ago are now, I find, being largely shipped to Japan. As you are well aware, the United States is still too busy with local demands, but as manufacturing is being carried on upon a large scale, I trust that the United States will grow so that some time in the future it will have no rival in business either local or export. Since the Russo-Japanese war came to an end Japan has been growing at the greatest speed, and it is expected that she will be able to export goods much more than heretofore."

Messrs. John W. Garrett and Robert Garrett of Baltimore have offered to present to the State of Maryland 2300 acres of timber land in Garrett county as the nucleus for a forest reserve.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

ACTIVITY IN GEORGIA.

Several New Railway Plans Announced During the Week.

The activity prevailing in Georgia with reference to new railroad construction is a matter of considerable comment in railroad circles, as well as among financiers who are interested in transportation development. The recent incorporation of the Brinson Railway Co., which proposes to build a line from Savannah to Athens, Ga., has been followed by the organization of the Augusta & Northwestern Railway Co. by residents of Augusta, Ga., to build a line from that city to Athens, about 90 miles. The capital stock of this proposed line is \$100,000, and the incorporators are E. F. Verdery, P. D. Langdon, Chas. T. Fargo, Bryan Lawrence, W. W. Ramsey, W. E. Andrews, J. T. Smith, W. B. White, all of Augusta.

It is asserted that the building of a line from Augusta to Athens would, by connection with the Southern Railway, make possible a short route to Knoxville, Tenn., via the Southern's projected line from Walthalla, S. C., over the mountains.

The Atlanta, Griffin & Macon-Electric Railway Co. is another new plan just organized in Georgia with \$3,000,000 capital to build a line 88 miles long to be operated on fast schedules. A franchise has been requested in Atlanta and the application for a charter is also to be filed. Those interested in the plan are N. P. Platt, president of the N. P. Platt Laboratory, and Clifford L. Anderson and W. A. Wimbish, well-known attorneys of Atlanta; W. J. Kincaid, president of the Kincaid Mills; Seaton Grantland and J. M. Brawer, associated with him in mill enterprises, and Dr. N. B. Drewry, all of Griffin, Ga., Dr. Drewry being the mayor of Griffin, and W. J. Massee and J. T. Moore, manufacturers, of Macon, and Minter Wimberly, a prominent attorney of that city.

Surveys, it is said, will begin immediately, and it is asserted that the road will be in operation within a year after the surveys are finished. It is to be a substantially-constructed line, and will carry only passengers and express matter.

The Ocilla & Valdosta Railroad Co. proposes to build an extension about 90 miles long from a connection with its present road to Macon, Ga. The road now runs from Irwinville to Ocilla and Osierfield, Ga., about 24 miles, and the projected extension would traverse Irwin, Wilcox, Pulaski, Houston and Bibb counties. J. A. J. Henderson is president of the company, with headquarters at Ocilla. R. Henderson is vice-president, and W. N. Smith is secretary and treasurer. T. E. Richardson is chief engineer at Broxton, Ga.

The Miona Springs Railway Co. has been organized at Fort Valley, Ga., and will apply for a charter to build a line several miles long from Southland, on the Atlanta, Birmingham & Atlantic Railway, via Miona Springs, to either Fort Valley or Marshallville, on the Central of Georgia Railway. The organizers are F. O. Miller, A. B. Greene, A. J. Evans, J. R. Lane, C. B. Culpepper, C. L. Shepard, C. W. Arrowsmith, W. W. Henderson and A. O. Brewton of Fort Valley, and others from Macon county, Georgia.

Another projected railway is an extension of the Central of Georgia from Albany, Ga., to Quincy, Fla., about 75 miles. A preliminary survey has been made for this, and C. K. Lawrence, constructing engineer, is about to begin location.

TRUNK LINE IN EMBRYO?

Williams and Middendorf Supposed to Be Building Up a System.

J. William Middendorf of Baltimore, John Skelton Williams of Richmond, E. H. Callaway of Augusta and others have applied in Georgia for a charter for the Georgia & Florida Railway Co., which is to be the name of the corporation controlling the railroad merger proposed by those gentlemen for a continuous line from Augusta to Valdosta, Ga., and to a point on the Gulf of Mexico in Florida. The length of road, including branches, will be about 350 miles, and of this about 100 miles will be new construction.

In Georgia it is surmised that Messrs. Williams and Middendorf are contemplating another trunk line to grow out of this railroad consolidation. This does not seem improbable when it is remembered that the Williams interests not long ago obtained control of the Raleigh & Charleston Railroad, formerly the Carolina Northern, which extends from Marion, S. C., northward to Lumberton, N. C., a distance of 41 miles. Although it is 150 miles from Marion to Augusta, the distance is not too great to be spanned by a connecting link of railroad should the inducements for a trunk line prove sufficient to warrant such construction. This appears all the more true when it is remembered that the intervening country presents no engineering difficulties of moment, and there are, moreover, two or three intervening lines, small, it is true, which could be used if need be as parts of a trunk-line connection.

The Raleigh & Charleston is the name given to the Carolina Northern Railroad after its acquirement by Mr. Williams and associates, and it is evidently their purpose to build northward as far as Raleigh, N. C., and also southward to the port of Charleston. But there is nothing to prevent them from also building southwest from Marion to reach Augusta, and it may be that there is some idea of a connection with the proposed Columbia extension of the Augusta & Aiken Electric Railway, although there was a recent rumor that the Seaboard Air Line would use that projected road if there were to be any steam trains operated over it.

It may be noted that if the Williams and Middendorf interests have in contemplation the creation of a new trunk-line route the connecting up of a line from Augusta via Marion to Raleigh would make connection there with the new Norfolk & Southern combination. This, of course, is merely a speculative possibility, but it is interesting as showing the manner in which a new railroad system in the South might be brought into being.

Already the Georgia & Florida Railway Co. that is to be is proceeding with plans to bring the railroads under its control up to a state of considerable efficiency, and preparations are also under way to build the several connecting links which are required.

NEW ELECTRIC LINE.

Single-Phase Railway Equipment at Anderson, S. C.

The Anderson Traction Co. of Anderson, S. C., is rapidly building the first section of an interurban railway which will eventually connect Anderson with Greenville, S. C., 35 miles away. Anderson is a cotton-mill center, and the new line will place it in touch with the surrounding cotton-mill towns as well as in closer connection with the main line of the Southern Railway.

In the city there is already a direct-current railway, and the first branch of the interurban is a continuation of the present lines as far as Belton, a distance of 10 miles. Complete station apparatus and motor equipments for single-phase opera-

tion have been ordered for the extension. The new cars are of the heavy interurban type, and are each equipped with four G. E. A. 605 (75 horse-power) single-phase motors, adapted for operation at 3300 volts, alternating current, on the interurban section of the road, and at 550 volts, direct current, on the present direct-current city lines. Each car is fitted with airbrakes, for which the motor compressors are adapted for operation on either direct or alternating current. This apparatus, as well as the car motors and equipment, is furnished by the General Electric Co.

Power for the operation of the road will be purchased from the Savannah River Power Co., delivered at a substation in Anderson at 66 $\frac{2}{3}$ cycles. In the substation there will be a three-unit motor generator set, consisting of an induction motor drive direct connected to an A. C. generator for the single-phase portion of the line and a direct-current machine to supply the present city line. The driving motor consists of a two-phase 66 $\frac{2}{3}$ -cycle 1150-volt induction motor, receiving its current from the 66 $\frac{2}{3}$ -cycle supply above mentioned. Direct connected to this is a 300-kilowatt 25-cycle single-phase 3300-volt alternating-current generator, which will furnish the 10-mile single-phase section now under construction with current directly to the trolley at 3300 volts without substations. The remaining machine for furnishing the direct current consists of a 250-kilowatt 600-volt railway generator, complete with an exciter on the same shaft as the other three machines.

This newest adaptation of single-phase railway apparatus for interurban service indicates that the trolley companies are in the front ranks of the great industrial movement throughout the South. The officers of the Anderson Traction Co. are J. A. Brock, president; F. G. Brown, vice-president; Geo. E. Coughlin, general manager. The road is being constructed under the direction of J. E. Sirrine, engineer, of Greenville, S. C., with E. F. Lilly of Columbus as consulting electrical engineer. General Electric Co. apparatus is being used throughout.

IN THE SOUTHWEST.

Several New Lines Proposed in Louisiana, Texas and Oklahoma.

The Oklahoma, Texas & Gulf Railroad Co., capital \$7,000,000, has been chartered at Guthrie, O. T., to build a line from Little Rock, Ark., through Indian Territory and Oklahoma to a point on the Fort Worth & Denver City Railway between Childress and Clarendon, Texas; also a branch from a point in the Chickasaw Nation to Sherman, Texas, and another branch from a point in Geeser county, Oklahoma Territory, to Erick or Texola, O. T., a total length of 350 miles. The headquarters will be at Blair, O. T.; Ardmore, I. T., and Fort Worth, Texas. The estimated cost of the line will be \$25,000 per mile. The incorporators are C. A. Huber of Weatherford, Texas; F. R. Wildman of Blair, E. A. Williams of Roosevelt, O. T.; R. K. Wooten of Chickasha, I. T.; R. Nurge, Felix P. Bath and L. B. Corner of Fort Worth, Texas, and J. W. Buchanan of Van Buren, Ark.

The San Saba Valley Railroad Co. has filed its charter in Texas to build a line from Antelope Gap, on the Santa Fe, in Mills county, via San Saba to Crothers, on the Fort Worth & Rio Grande Railroad, 50 miles. The capital is \$200,000. The general offices will be at San Saba, and the incorporators are E. Campbell, T. A. Murray, N. R. Sloan, Robert G. Coryell, W. S. Sanderson, Archie Woods, E. L. Rector, J. R. Cunningham, W. F. Sullivan, John Kelly, John H. Martin, J. K. Rector, R. M. Ward, G. P. Holman, U. M.

Sanderson, G. H. Sanderson, J. D. Estop, J. R. Polk and B. R. Russell, all of San Saba. The directors are E. Campbell, John Kelly, T. A. Murray, R. G. Coryell, W. S. Sanderson, J. H. Martin, J. D. Estop, R. M. Ward and E. L. Rector.

The Organ Mountain Railroad Co. of El Paso, Texas, capital \$100,000, has filed its charter to build a line from El Paso to the New Mexico boundary, 15 miles, and thence to the Organ mountain, in New Mexico, a total distance of 75 miles; capital \$100,000. The directors are Andrieus A. Jones of Las Vegas, N. M.; Geo. W. Carrington, N. D. Streeter of Philadelphia, Pa.; A. M. Walthall, Harris Walthall, J. W. Eubank of El Paso.

The Texas & Pacific Railway, according to a report from Beaumont, Texas, is contemplating the construction of a line from Bunkie, La., via Lake Charles, La., to Orange, Texas, about 150 miles. Surveys are reported in progress between Eunice and Bonaire, La.

BIRMINGHAM SOUTHERN.

Tennessee Coal, Iron & Railroad Co. May Buy Back Its Line.

The Tennessee Coal, Iron & Railroad Co. is reported to be negotiating to purchase the Birmingham Southern Railroad, which is now owned jointly by the Southern Railway and the Louisville & Nashville Railroad, and an option on the property is reported to have been given to the Tennessee Company.

The Birmingham Southern Railroad, which is a standard-gauge line 26 or 27 miles long, was built and owned by the Tennessee Coal, Iron & Railroad Co. some years ago for the purpose of connecting its various properties. It was sold in 1890 to the present owners, and from \$1,000,000 to \$1,200,000 was, it is said, paid for it. It is said that it would now be of great advantage to the Tennessee Company to again own the railroad, and it is reported that the present owners have offered to sell it at cost, plus the expense of repairs, extensions, purchases of new equipment and interest.

The different parts of the Birmingham Southern Railroad are as follows: From Birmingham to the mines at Ensley, Ala., 9 $\frac{1}{4}$ miles; from Pratt City to Stockton, Ala., 4 $\frac{1}{8}$ miles; from Woodstock to Blocton, Ala., 8.1 miles; from Pratt City to No. 1 mine, about .8 of a mile; the Ensley Belt Line, 1.7 miles; from Blocton to No. 2 mine, 1.1 miles; from Blocton to No. 3 mine, 1 $\frac{1}{4}$ miles. There is a total trackage, however, of something more than 88 miles, all of 80-pound rail. The line has 28 switching locomotives and 600 cars.

A report from Birmingham says it is believed that the deal will be closed, as the line touches nearly all of the manufacturing plants of the company and also many of its mines.

HAS A BROAD CHARTER.

Tidewater Development Co. of Alabama Has Transportation Plans.

The Tidewater Development Co. has filed incorporation papers at Birmingham, Ala., for the purpose of engaging in the transportation business both by water and rail in that State, besides handling light and power plants and other public utilities. The directors of the company are James M. Dewberry, president; Lewis Minor, vice-president; James W. Donnelly, secretary; E. F. Enslen, treasurer; Forney Johnston, attorney; R. H. Little, Louis Saks, J. D. Hancock, Robert D. Johnston, Jr., of Birmingham, and J. B. Chesney of Atlanta.

The incorporators' list includes the above and Dewberry & Sons, R. A. and R. T. Clayton, and J. M. Dewberry, trustee.

It is proposed first to build an electric railway from Gadsden, Ala., via Birming-

ham to Tuscaloosa, Ala., about 80 miles. Mr. J. M. Dewberry and his associates have secured franchises in a number of towns between Gadsden and Tuscaloosa for the railway, and it is also proposed by them to conduct transportation on the Warrior, Tombigbee, Alabama, Coosa and Mobile rivers and Mobile bay. The capital is \$100,000 authorized, but the company proposes to begin business with \$42,000 capital.

Besides operating railways and steamers, the objects of the corporation are declared to include the operation of automobiles, barges and canals, to promote and organize industries, to deal in and develop timber lands or farms, to operate stores, and, in fact, to engage in almost any line of business which might be deemed advantageous by a company having for its principal object the business of transportation.

ITS PLANS FINANCED.

Atlanta, Birmingham & Atlantic Railway issues \$8,000,000 of Notes.

The Atlantic & Birmingham Construction Co., which is building the extension of the Atlanta, Birmingham & Atlantic Railway from Montezuma, Ga., to Birmingham, Ala., has, according to an announcement made in New York, sold \$8,000,000 of 5 per cent. four-year collateral trust notes to a syndicate composed of the Trust Company of America and Clark, Dodge & Co. of New York and the Old Colony Trust Co. of Boston. The proceeds of the notes are to be used for completing the extension of the railroad into Birmingham and Atlanta, and also to pay for the steamships and other properties which will be used in connection with the line.

It is said that the notes will be secured by a deposit of securities as follows: The entire issue of Brunswick Steamship Co. bonds, \$1,000,000; entire issue Brunswick Steamship Co. capital stock, \$1,000,000; entire issue of Atlanta, Birmingham & Atlantic Railroad Co. equipment notes, \$1,200,000; entire issue of capital stock of Coal Company and Iron Company, \$3,000,000; Atlanta, Birmingham & Atlantic Railroad Co. first mortgage bonds, as earned, \$6,000,000; 46,000 shares preferred stock Atlanta, Birmingham & Atlantic Railroad Co., \$4,600,000; 100,000 shares common stock of Atlanta, Birmingham & Atlantic Railroad Co., \$10,000,000.

It is further stated that the preferred and common stock mentioned as received by the construction company, out of the total capital of approximately \$9,000,000 preferred and \$18,000,000 common, constitute an absolute majority of both classes of stock.

New Equipment, Rails, Etc.

The Atlantic Coast Line is reported to have let a contract to Barney & Smith of Dayton, Ohio, for 500 coal cars to be delivered in December next.

The Norfolk & Western Railway is reported to have recently given a contract to the United States Steel Corporation for 10,000 tons of rails for this year's delivery.

The Orange Iron Works of Orange, Texas, has received an order from the Orange & Northwestern Railway for 50 additional logging cars.

The Texas Railway Co., lately organized at San Antonio, Texas, is reported to have ordered 7000 tons of steel rails from the Block-Pollack Iron Co. for its line from O'Connorsport to Yoakum, Texas. The same manufacturers are reported to have received a contract from the Texas Southeastern Railway Co. for 1500 tons of rail.

The Baltimore & Ohio Railroad Co. is expected to shortly award its rail contracts for delivery in 1907. The total, it is said, will be about 80,000 tons.

The Texas & Pacific Railway has completed a new Atlantic-type locomotive at its shops at Marshall, Texas. It is a passenger engine weighing about 105 tons.

Seaboard Into Anniston.

The directors of the Atlanta & Birmingham Air Line—the Seaboard's extension to Birmingham—have authorized the construction of a spur into Calhoun county, Alabama. This is probably for the purpose of building the long-talked-of branch to Anniston, Ala., which is about eight miles from the main line. It is understood also that as a result of the building of this spur a large ore property near the line may be developed. Mr. Alfred Walter, the new president of the Seaboard, has been elected president of the Atlanta & Birmingham Air Line.

New Freight Depot in Atlanta.

The Louisville & Nashville Railroad has been granted permission in Atlanta, Ga., to erect its proposed warehouse and freight depot fronting on Central avenue, between Waverly Place and East Hunter street, extending back to Piedmont avenue. The freight depot will be five stories high, 50 feet wide and 835 feet long. The Ferro-Concrete Construction Co. of Cincinnati has been given the building contract. It is said that the total cost of the improvement will be between \$400,000 and \$500,000.

Automobile Companies.

An automobile company is reported to be organizing at Petersburg, Va., for the purpose of operating a line of automobiles. George W. Harrison and J. M. Townsend are interested.

The Gully Auto Co. of Hollis, O. T., has been incorporated to operate an automobile line in Greer county for freight and passengers between Hollis and Eldorado, O. T. The incorporators are J. C. Gully of Eldorado, R. J. Gully, Jr., and W. D. Gully of Hollis.

Close Traffic Agreement.

Officers of the St. Louis & San Francisco Railroad are reported as saying that their company has not purchased the Mobile, Jackson & Kansas City Railroad, but that a close traffic agreement has been made with it, the connection being at New Albany, Miss.

Railroad Notes.

According to a dispatch from Chicago, the Southern Railway is seeking to secure control of the Chicago, Cincinnati & Louisville Railroad, in order to have an extension to that city.

A report from New Orleans says that E. R. Bacon, vice-president of the Baltimore & Ohio Southwestern Railway, and L. F. Loree, formerly president of the Baltimore & Ohio Railroad, have been in that city in the interest of the Baltimore & Ohio Southwestern, but Mr. Loree is quoted as denying a report that their presence meant that the Baltimore & Ohio was desirous of securing an entrance to New Orleans.

For Paper Manufacturing.

In writing to the MANUFACTURERS' RECORD regarding the industrial interests of Lake Charles, La., one of our correspondents refers to the advantages of the city as a location for paper mills. These advantages are said to be mainly the great supply of gum trees in the surrounding country and cheap oil fuel as a motive power. Other conditions that should be attractive to those who may contemplate engaging in the paper-milling industry are also claimed. Mr. Reiser, president of the Reiser Machine Shops at Lake Charles, invites information of a technical character regarding the manufacture of paper.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS' RECORD. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

The Victory Manufacturing Co.

The MANUFACTURERS' RECORD of May 10 referred to the proposition for organizing the Victory Manufacturing Co. of Fayetteville, N. C. It can now be stated that the company has effected permanent organization, the officers chosen being: President, H. W. Lilly, president of Bank of Fayetteville; vice-president, Adam Catterall of New York; secretary and treasurer, Fletcher M. Cook of New York, and general manager, W. D. McNeill of Fayetteville. The directors are those named and Messrs. John Thorp, Edward Davis, N. B. Catterall and A. W. Davis of New York, Herbert Lutterloh, F. H. Cotton and J. V. McGourgan. The new company is capitalized at \$200,000, and proposes building a cotton-cloth mill. It is understood that the Northern investors in this company will also build at Fayetteville a print mill independent of the Victory enterprise, and will purchase that company's output. Further details will doubtless be announced soon as to both plants. Offices of the company are at 127 Donaldson street, Fayetteville. The company's plans will provide for the construction and equipment of a modern mill to contain 25,000 spindles and 800 looms for the production of print cloth, about 700 persons to be employed when the plant is in operation. About 1000 horse-power will be transmitted by electricity for power. The company is inviting estimates on machinery and supplies, and Fletcher M. Cook, the treasurer, can be addressed at 127 Donaldson street, Fayetteville, N. C.

The Dresden Cotton Mills.

The MANUFACTURERS' RECORD has received further details regarding the Dresden Cotton Mills of Lumberton, N. C., the company recently referred to as organized with a capital stock of \$200,000, of which \$175,000 has been subscribed. The company has about decided that its textile machinery will be mainly 10,000 spindles for manufacturing yarns and its main building will be a one-story-and-base-ment structure about 80x425 feet in size, while a 40x80-foot wing will be used as the boiler and engine room. The engine will be of the Corliss cross-compound condensing type, and rope drive will be used to transmit power throughout the plant. No engineer of construction has been engaged, and the company will probably attend to this feature of the work itself. Officers of the new company are as previously stated, namely: President, R. D. Caldwell; vice-president, A. W. McLean, and secretary-treasurer-manager, H. B. Jennings. Messrs. Caldwell and Jennings are also managing officers of the Lumberton Cotton Mills, an established enterprise operating 12,000 spindles.

Correction of Mill List.

The attention of the MANUFACTURERS' RECORD has been called to an error in its list, presented last week, of the Southern cotton mills and their equipments. This error consisted in crediting the Lanett Cotton Mills and the Riverdale Cotton Mills to West Point, Ga., whereas they should have been listed, respectively, under Lanett and Riverview, Ala. These two mills are in Alabama, across the

river from West Point, Ga., where the main offices are with the West Point Manufacturing Co., the three companies named being conducted by the same management. This causes a slight change in totals for the two States mentioned, Alabama's total actually being 840,276 spindles and 16,929 looms, and Georgia having 1,702,967 spindles and 36,720 looms. The Lanett and the Riverdale plants are generally referred to as of West Point, Ga.

The Union-Buffalo Mills Co.

The Union Cotton Mills of Union, S. C., was bought in for \$1,239,400 by William Elliott, Jr., at the sale held last week in accordance with order of court. This is the first formal step in the merging of the Union Cotton Mills, the Buffalo Cotton Mills, the Union Manufacturing & Power Co. and the Union & Glenn Springs Railway into the Union-Buffalo Mills Co. This latter is the new corporation organized to take over and continue the operation of these properties, as stated at some length by the MANUFACTURERS' RECORD of March 15. The new company is capitalized at \$7,000,000, and Edwin W. Robertson of Columbia, S. C., is president. Its plans have been detailed previously. The other properties will be purchased in due course.

A 30,000-Spindle Addition.

Recently the MANUFACTURERS' RECORD referred to the Cannon Manufacturing Co. of Concord, N. C., as considering an increase of capital for the purpose of building another mill. The company has now made an affirmative decision and filed notice of an increase of capital stock from \$200,000 to \$1,000,000. This additional mill will be equipped with 30,000 spindles and 400 looms, but the plans and specifications have not been prepared, nor has the engineer in charge of installation been selected. The present Cannon mill has 27,000 spindles and 1000 looms.

The Selma Knitting Mills.

The Selma Knitting Mills of Selma, N. C., has begun the construction of a brick building two stories high, 40x190 feet, in which will be installed a modern equipment for manufacturing knit goods. Contract has been awarded for knitting machines and for engine and boiler. This company was referred to in March as organized with a capital stock of \$25,000. Mr. M. C. Winston is president, and S. I. Moore, secretary-treasurer.

The Elk Cotton Mills.

The new company at Dalton, Ga., which was referred to last week, has been incorporated as the Elk Cotton Mills, with a capital stock of \$165,000. It will proceed with the plans of M. C. Foster for building a cotton mill of 7500 spindles for the production of yarns. Details are now being considered. Messrs. M. C. Foster, F. T. Hardwick, W. H. Foster, R. L. Harlan, W. C. Martin and a number of others are the incorporators.

A Proposed Knitting Mill.

The MANUFACTURERS' RECORD is informed that W. H. Jones of Paris, Ark., has under consideration the erection of a knitting mill, and desires to correspond with manufacturers of the necessary machinery except power. Mr. Jones also wants to correspond with experienced engineers of construction for knitting mills.

Textile Notes.

It is reported that M. M. Burke of Crouse, N. C., will build a cotton mill of 2000 spindles.

The Jefferson City (Tenn.) Woolen Mills is reported as having contracted for the erection of another building and the

installation of additional machinery, including a number of looms.

The South Atlantic Waste Co. of Charlotte, N. C., will rebuild its cotton-waste mill recently reported burned at a loss of \$150,000.

It is reported that the Virginia Cotton Mills of Swepsonville, N. C., has begun the construction of a stone dam across Haw river to develop additional power, and will build a 300-foot extension to present building in order to provide space for the installation of more textile machinery. The company is now operating 10,000 spindles and 300 looms.

It is reported that the Spencer Mountain Mills of Lowell, N. C., has about completed the construction of its dam to develop 1500 horse-power and will erect an electric plant to transmit this power by electricity to its cotton factory of 4368 spindles, which equipment will be increased when the new power plant is entirely completed. Contracts for construction and machinery are reported awarded.

It is proposed to organize a company with capital stock of \$1,000,000 for the purpose of building a cotton mill at Washington, Ga. This mill is planned to be operated by electricity from the water-power-electrical plant which the Anthony Shoals Power Co. will build near Washington. The leading business men of Washington and Wilkes county are said to be subscribing freely to the cotton-mill project.

Mobile as a Mahogany Center.

The development of the port of Mobile, Ala., as a mahogany center is indicated by the receipt there of valuable cargoes of mahogany logs, which are being shipped from the coast of Mexico by the International Lumber & Development Co. of Philadelphia, Pa., to Markley, Miller & Co. of Chicago, who have recently established a hardwood plant at Mobile. Regarding the operations of himself and associates, Mr. Markley is reported as saying that the International Lumber & Development Co., which is being promoted by Markley, Miller & Co., is making rapid progress in the development of its property in Mexico. The company now has 300 hands removing thousands of tons of mahogany, Spanish cedar and dye woods from its property, preparatory to planting the land to sisal hemp, orange, lime and lemon trees, etc., and is constructing a railroad from tide-water to its property for the purpose of transporting the timber to the sea for export to Mobile. Referring to the removal of the main offices of Markley, Miller & Co. from Chicago to Mobile, it is stated that there are many reasons suggesting, if not the transfer of the offices, at least the placing in Mobile of an authorized manager for the financial department of the company's import and export trade. It is understood that the International Lumber & Development Co., which is developing concessions in the States of Chiapas, Tabasco and Campeche, will increase its transportation facilities by the charter or purchase of additional steamers for its Mexican trade.

The Lonaconing (Md.) Board of Trade has organized with Messrs. Lloyd Durst, president; Arthur Price, vice-president; H. W. Dellinger, secretary, and J. T. Miller, treasurer.

During April 19,967 tons of high-grade Florida phosphate rock were shipped through Savannah to Hamburg, Rotterdam, Bremen, Causton, Genoa, Trieste and Antwerp.

A State conference under the auspices of the Augusta (Ga.) Chamber of Commerce decided Tuesday to work for the establishment of a State bureau of immigration.

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

Lumber at Gulfport.

[Special Cor. Manufacturers' Record.]
Gulfport, Miss., May 26.

Three vessels cleared from this port Thursday and yesterday, the total value of their cargoes, 8,951,317 superficial feet of lumber, being \$66,415.94. The W. A. Powell Company sent out the British steamship Eaton, which is bound for Leith, Scotland, and Cardiff, Wales. It had on board 1,657,652 feet of lumber, valued at \$41,400. L. N. Dantzer Lumber Co. shipped 935,283 feet, valued at \$19,640.94, on the bark Fantassi, whose home port is Buenos Ayres, Argentine Republic. The American schooner Gertrude A. Bartlett also cleared for Campeche and Vera Cruz, Mexico, loaded with 358,382 feet, valued at \$5375, for H. F. Sproul. 5,539,444 superficial feet of pine lumber was shipped from this port today on two steamers. The value of the combined cargo was \$92,143.34, and it was consigned to Montevideo, Uruguay, and Buenos Ayres, Argentine Republic. L. N. Dantzer Lumber Co. placed 2,262,379 feet on board the steamship Atlantic, which was drawing 21 feet on its way through the channel. The Luchaus, drawing over 20 feet, carried 2,277,065 feet from the W. A. Powell Company, valued at \$52,371.

Mr. Favorite of the New Orleans Naval Stores Co., whose plant was destroyed by fire on the 13th, states that work on the new structure is progressing satisfactorily, and that side-tracks, etc., are being rapidly laid. Within a short time business, which has not been interrupted, will be going on from its own plant, and the new buildings will be much better adapted to the business than the old.

R. H. HENRY, JR.,
Secretary Progressive Business League.

Hardwood Lumbermen Meet.

The Asheville Lumber Exchange, recently organized at Asheville, N. C., and embracing in its membership the manufacturers of Western North Carolina, held an adjourned meeting last week and perfected its organization by electing the following officers and directors: President, W. T. Mason, Asheville; vice-president, J. M. Burns, Asheville; secretary-treasurer, A. F. Hall, Asheville; directors for two years, G. N. Hutton, Hickory, N. C.; W. N. Woodbury, Murphy; directors for one year, E. E. Quinlan, Waynesville, N. C.; G. N. Wood, Asheville. Messrs. Schenck, chairman; English, Fisher, Hutton, Hobbs, Hall and Wood were appointed a committee to attend the meeting of the Freight Agents' Association at Lake Toxaway, N. C., on June 10.

Big Timber Deal Reported.

Messrs. Howard Marsh and F. E. Waltrons are reported from Jackson, Miss., as consummating negotiations for the purchase of a large area of timber lands in the Pearl river valley for capitalists whom they represent. It is stated that the selling interests are Messrs. Baldwin & Unsell of Clarksdale, Tenn., and Bardstown, Ky., and Allen Brothers & Wadley of Shreveport, La., the consideration involved aggregating \$971,000 for deals already closed, while others are pending. It is understood that a railroad will be constructed from Jackson to Columbus, Miss., and eventually to Birmingham, Ala.

Big Arkansas Enterprise.

Dispatches from Nashville, Ark., report that Capt. C. C. Henderson of Arkadelphia has secured between 35,000 and 40,

000 acres of timber and agricultural lands in the vicinity of Nashville, and will erect saw-mills there to have a capacity of 50,000 feet of lumber per day. It is stated that Captain Henderson will also construct a standard-gauge railroad from Nashville to a point on the line of the Kansas City Southern Railway near Ashdown via White Cliffs, on Little river. The road will cover a distance of about 25 miles, and construction work will begin as soon as an engineering corps can be organized. It is estimated that the enterprise will involve an expenditure of \$500,000.

Big Building Boom.

According to statistics gathered by the Oklahoma City *Trade Bulletin*, relating to building improvements in Oklahoma and Indian Territories, contracts for new construction let in the two Territories for the month of April aggregated \$2,184,944. Of the total, \$1,869,357 represented the value of 117 residences, 74 mercantile buildings, 45 schools, hospitals, churches, etc., while \$315,587 represented the value of water-works, sewer systems and lighting plants. For the first 22 days of May Building Inspector Wells of Oklahoma City issued permits for building construction amounting to an estimated value of \$383,300.

Timber Tract Purchased.

Mr. H. G. Rembert of Gainesville, Fla., is reported to have purchased about 7000 acres of timber land in Bradford county, Florida. The property is located between Starke and Highland, convenient to the Seaboard Air Line Railway, and is said to contain a very superior quality of timber. A modern saw-mill plant to have a capacity of 25,000 feet per day is under construction on the tract, and will be completed within a few weeks, the equipment having been ordered.

Lumber Notes.

Ten vessels cleared from Fernandina, Fla., last week carrying cargoes aggregating 7,614,660 feet of lumber.

The Russellville (Ala.) spoke and handle factory is reported as running to its full capacity, producing from 5000 to 6000 spokes per day. Work is now being pushed on an order for Canadian points.

The Nicolette Lumber Co. of Nicolette, W. Va., has completed a contract for furnishing the government with 125,000 feet of West Virginia white-oak timber for use in shipbuilding at the navy-yard at San Francisco.

The Belgian steamer Clematis cleared from Pensacola, Fla., last week with a cargo of 450,000 gallons of turpentine and 26,000 barrels of rosin for Bristol and London. The shipment was made by the S. P. Shotton Company.

With a view to securing a better class of coöperation for the trade, the naval-stores inspection committee of the Savannah (Ga.) Board of Trade has decided to instruct the producers to report the manufacture of all barrels.

The McInnis Lumber Co. of Hattiesburg, Miss., has completed the erection of its new saw-mill, having a capacity of 75,000 feet per day. The company controls several thousand acres of pine timber lands and has constructed a logging road four miles into the timber.

Vessels recently clearing from the port of Gulfport, Miss., carrying cargoes of lumber include the steamship Trident bound for Buenos Ayres with a cargo of 2,186,287 feet, shipped by N. D. Denny & Co., and the steamship Gamma, William Rudolf & Co., bound for Rotterdam with 1,515,443 feet. There are at present several other vessels in the port awaiting cargoes.

MINING

Improvements Contemplated.

The Brasher Coal Co., Edward L. Shell, superintendent, Madisonville, Ky., advises the MANUFACTURERS' RECORD that it is at present operating its Royal mine at Madisonville and a mine recently purchased from the Oak Hill Coal Co. located at Chesley, Ky. The Madisonville mine has a daily capacity of 600 tons, and is thoroughly equipped with modern machinery. The company contemplates installing electric haulage at its mine at Chesley and doubling its present capacity, which is about 500 tons daily. Plans for the improvements, however, have not been perfected. This mine is in charge of Mr. E. L. Shell. Officers of the Brasher Coal Co. are Messrs. John B. Brasher, president; M. D. Brasher, vice-president; Ira Parish, secretary, and E. L. Shell, superintendent. Main offices of the company are at Madisonville.

New Mining Company.

Articles of incorporation have been granted to the Cumberland & George's Creek Coal Co. of Cumberland, Md., with a capital stock of \$350,000, for the purpose of dealing in coal and other mineral lands, to build and operate tramroads, etc. It is also authorized to issue bonds in the sum of \$350,000, secured by a mortgage on its mineral lands. Incorporators and directors of the company are Messrs. Frederick S. Hannah and Arthur Bailey of New York and D. J. Lewis, D. James Blackiston and Benjamin A. Richmond of Cumberland.

Large Mining Company.

In dispatches from Salisbury, N. C., the announcement is made that a new mining company has been incorporated with a paid-up capital stock of \$3,000,000, and the privilege to increase to \$15,000,000, for the purpose of developing a rich mining district in the southern section of Rowan county. Officers of the company are Messrs. A. M. A. Richardson of Patterson, N. J., president; Otto Germer of Cincinnati, Ohio, vice-president, and W. M. Richardson of New York city, secretary.

Mineral-Land Development.

Reports from Austin, Texas, state that Capt. E. A. Bolmes of the pension bureau of the comptroller's department of that State will begin the development of mineral lands in Burnet county next fall. It is stated that Captain Bolmes has already made an assay of some of the minerals found on his property, and finds that gold, silver and copper exist in paying quantities.

Coal Lands Bought.

Reports from Grafton, W. Va., state that Fred O. Blue, acting for Judge Dayton and Pennsylvania capitalists, has purchased 840 acres of coal land in Barbour county, West Virginia, from J. F. Barnes of Fairmont. Negotiations were conducted by M. A. Jolliff of Fairmont.

The Chamber of Commerce of Durham, N. C., has been reorganized with Capt. E. J. Parrish, president; Mr. Victor S. Bryant, vice-president, and Mr. Sidney Chambers, secretary.

The report of the Memphis Industrial League for 1905 has been published in attractive pamphlet form by Col. I. F. Peters, commissioner.

The Commercial Club of Joplin, Mo., has a proposition from G. C. Kellogg of Carthage to organize a \$25,000 company to make monuments.

There is a prospect of a furniture factory for Columbus, Ga.

MECHANICAL

"Cyclone" Hand-Power Core Drill.

An accompanying illustration presents a view of a core drill designed to supply the wants of those who will need to consider some or all of the following points: A light drill, weight (drill only) 290 pounds, easily transported, which, when taken apart, is adapted to be packed securely in a space 16x18x36 inches; cores from 1 inch to 1 1/4 inches in diameter from all solid material to a depth of 150 feet; adapted to testing quarry lands of all kinds, and to all other classes of prospecting where small cores will give the desired information and shallow holes only are required.

A hand drill cannot be operated as cheaply nor will it produce as much work

A 125-Ton Engine Bedplate.

The progress of the huge 125-ton engine slide and bedplate casting which was poured over two weeks ago at West Allis Works of the Allis-Chalmers Company is attracting universal interest from the fact that it is the largest single casting ever poured in the company's works during an engine-building career of more than a quarter of a century. The casting, which was taken from its mold on April 24, weighs, roughly, 133 tons, and has been cooling gradually for the past 15 days until it reached a condition where it could be safely handled. The huge mass of metal is still giving off heat in such quantities that the workmen find it difficult to remain in close proximity. Three heavy traveling cranes, whose aggregate capacity of 145 tons will be required to withstand the strain of this enormous weight, will be



"CYCLONE" HAND-POWER CORE DRILL.

in a given time as one driven by proper mechanical power (where continuous work is done), but for a small amount of work it sometimes pays better to buy the cheaper outfit. That is all that this drill was designed to do.

This hand drill is operated like the "Cyclone" power drills, viz., by the rotation of a gear member through which the hollow, slotted drill rod extends. This drill rod below the gear is fitted with a ball-bearing collar. To the lower end of the drill rod is attached the tubular core barrel (the cutting member), beneath the lower edge of which are fed the chilled shot. These, under pressure, cut the rock, and the core so formed extends up into the core barrel, and is withdrawn from the hole when the barrel is full or the desired depth is reached.

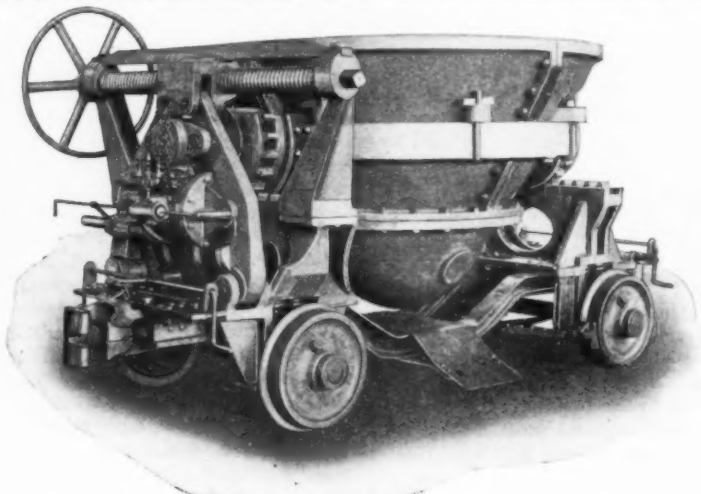
One man to turn and another to operate the forked lever, pump necessary quantity of water through the drill rod, feed shot, etc., is all the force required; but better progress can sometimes be made where the drilling force consists of three and they "change off" in their work more frequently.

The Cyclone Drill Co. of Orrville, Ohio, manufactures this hand drill, as well as a complete line of power drills. Further details can be obtained from the company.

used in conjunction to lift the casting. They will pull this mass from the pit in the floor of the foundry where the casting was poured and place it ready for the process of cleaning, which will require the work of 10 men in two shifts averaging 150 hours a day for a week or 10 days to complete. So heavy is this single piece that instead of attempting anything but a straight lift with the cranes, specially-laid railroad tracks will be provided to bring directly to the side of the casting a special flat car built for the purpose of handling this piece. This car has 16 wheels, and is the largest of its kind ever built, specially constructed at the West Milwaukee shops of the C., M. & St. P. Ry. The same care used to transport the casting from the foundry to the machine shop No. 1, where it will be subjected to machining processes necessary to finish it, will afterwards carry the finished piece to its destination. At the present time it is the intention to convey the casting directly to machine shop No. 1, where the heaviest machine tools are located. The casting will be bolted to the floor and machine tools used in the finishing will be brought to it. Three cranes were used in lifting the bedplate from the mold, so as to prevent any overstrain on a single crane or the possible breaking of a cable

A New Slag Car.

A new and interesting type of slag car has recently been designed by the Power & Mining Machinery Co. of Cudahy, Wis. Two accompanying views show a 10-ton slag car, of which 15 were recently built by the company for the new Garfield plant of the American Smelting & Refining Co. near Salt Lake City. Some idea as to the car's size can be gained from the over-all dimensions, which are 15 feet long and 6 1/2 feet high. Each car weighs 27,000 pounds empty, or 47,000 pounds when filled with



A NEW SLAG CAR.

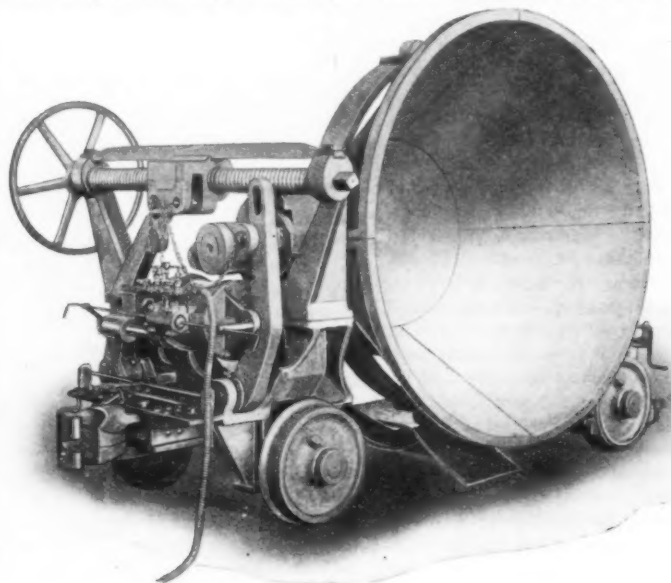
slag. The bowl is made in five sections, the bottom being made in one piece, with four quarters forming the top. This allows of any worn or broken part being easily replaced. These sections are securely bolted together and tied to a steel supporting ring by key bolts. The supporting ring is securely riveted to the pinion-toothed trunnions, which roll on a racked track. The pinion and the rack are both made open between the teeth to prevent their being clogged by any slag which might be spilled into them. The trunnions are rolled by means of a sleeve, which is operated through a lever by a

extreme position the side of the bowl makes an angle of 50 degrees with the vertical, so as to readily allow the slag skull to slide out. The bowl, in dumping, is carried to the side of the car by the rolling of the trunnions, so as to dump outside of the rail. An apron in the middle of the truck prevents any drippings from falling on the track.

The entire body of the car is carried on eight powerful springs placed under the front and rear supporting frames and resting on the main bearing boxes. These

bearing boxes are fitted with phosphor-bronze bearings, which are kept lubricated by removable oil-waste boxes. The two supporting frames are tied together by two 100-pound rails securely riveted to them and extended to carry the Tower Automatic Couplers. These are provided with the usual side-crank attachment for releasing the coupler. One of each pair of wheels is provided with a bronze bushing, so that it can revolve on the axle when going around a curve.

A large factor of safety was used in the design of all the parts of this machine because of the rough usage to which it is



NEW SLAG CAR—DUMPING POSITION.

12-inch compressed-air cylinder. This cylinder is designed to operate on 60 pounds air pressure and to tilt and hold the pot in any desired position. The air valve for this cylinder is a simple four-way cock conveniently operated from the side of the car. All the levers and other operating parts are made of steel to reduce the weight of the machine without sacrificing strength. A hand-wheel and screw is also provided so that the bowl can be dumped by hand should the air supply fail from any cause. When tilted to the

put. Special pains were also taken to make it as simple as possible to operate for the men usually employed for such labor.

Slag cars of this design are made in various sizes up to 15 tons in capacity, and with or without the air cylinder.

An Innovation in Street Lighting.

An innovation in ornamental and effective street lighting has been introduced almost simultaneously by several cities, including Chicago, Columbus, Los Angeles

and Pasadena. Briefly stated, it is a question of incandescents versus arc lamps, or the grouping of the number of low candle-power units at short intervals as over against single high-power units at greater distances from each other.

That the matter has attracted the attention of the lighting fraternity is fully attested by the fact that the Illuminating Engineering Society of New York at its recent meeting heard three papers pre-

in brightness the sunlight itself; that in convenience it is akin to electricity, and its use is not only healthful in a general way, but it also minimizes the strain upon the eyes.

In view of these facts, it is desired to call attention to what is known as the Ideal Epworth Acetylene Light. This light is produced by dropping carbide into water and releasing a gas said to be ten times richer than ordinary illuminating

plants, dwellings, public buildings or any other structure, or for communities.

The Universal Steel Corner-Bead.

Those architects, contractors and owners of buildings who are on the alert to learn of new materials and devices of assistance to them in the construction of

easily and quickly spliced to any desired length, and is readily fitted to ovals and arches. By its use an attractive finish is given around windows, and the expense of wood trim is saved. The manufacturers of this bead furnish it in strips of any desired length up to 10 feet, and state that many exacting architects, builders and



AN INNOVATION IN STREET LIGHTING.
Using the Benjamin Wireless Clusters.

pared by specialists, and at the close of the session considered the subject of sufficient importance to appoint a committee to make tests and to collect all available data for the definite information of its members.

An accompanying view shows the Chicago installation. It is on Michigan avenue, and extends along the lake front the full length of the Auditorium Block. The success of what was first considered an experiment has been so pronounced that the South Park Commissioners, who made the installation, contemplate extending the system as far south as 12th street and as far north as Randolph street, while the feeling generally prevails that all the public parks of the city should be equipped in a similar manner.

The posts are, highly ornamental, the globes tastefully and scientifically arranged. Benjamin wireless clusters of special design are used throughout. They are manufactured by the Benjamin Electric Manufacturing Co. of 42 Jackson Boulevard, Chicago.

The Ideal Epworth Acetylene Light.

Many homes in our own country and in other lands are surrounded by the beauties of nature and largely by the handwork of man, except that of light. Country homes especially are usually dimly lighted, and this situation can readily be changed by the use of an equipment which has been perfected during recent years and is rapidly coming into general use, not only in homes, but also in mercantile houses, stores and other structures, and by municipalities. This light is that produced by the burning of acetylene gas, the merits of which are frequently not understood, and regarding which erroneous statements as to danger are sometimes current. It has been found that acetylene light approaches

gas. This gas, called acetylene, is thoroughly filtered and washed in the Ideal Epworth generator, removing every particle of foreign matter before the gas goes out into a system of ordinary gaspipes in the building, where, by the use of Epworth burners, is furnished a light so similar to the sun's rays that colors may be distinguished and plants will even continue to grow as though standing in the sunshine.

The Ideal Epworth equipment is simple in construction, easy to operate, works automatically, and has a patent dropper which does not fail to do its required work.

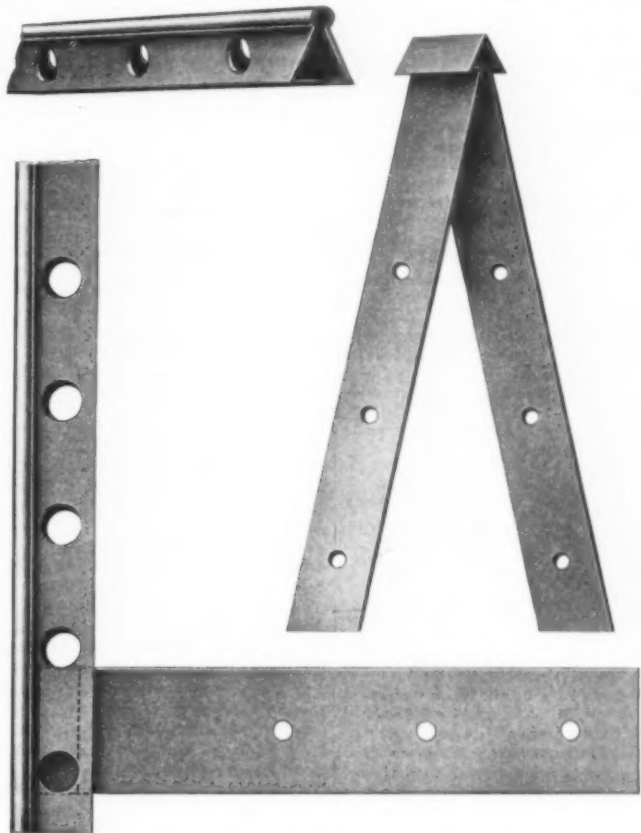


IDEAL EPWORTH ACETYLENE LIGHT.

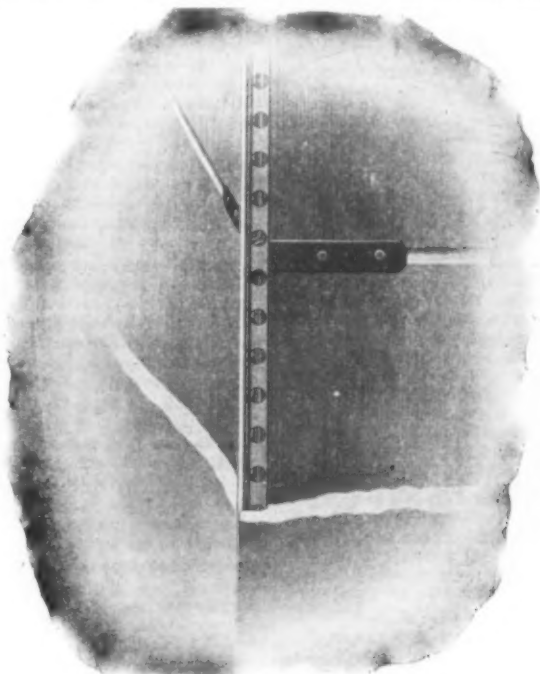
The Ideal apparatus is made of the best material by skilled workmen, and in sizes small enough to light a single room or large enough to light a town. It is stated that no matches need be employed in lighting the gas; that it is safer than other lighting systems, and that it can be installed in any building without increasing the insurance rate. The Ideal Epworth Light equipments are manufactured by the Ideal Epworth Acetylene Co. of Johnstown, Pa., where inquiries can be directed for explanatory literature or for any specific information that may be desired by those wishing to provide satisfactory lighting for stores, factories, mills, industrial

buildings will doubtless find their attention attracted by the two accompanying illustrations of the Universal Steel Corner-Bead. This device is offered as meeting all corner-bead requirements, and as adding intrinsic value to any building in which it is used. It builds a straight, true and lasting corner, which saves in

contractors are specifying it and using it in the building construction work undertaken under their direction. The Rogers-Shear Company of Warren, Pa., are the manufacturers of the Universal Steel Corner-Bead, and will send complete descriptive booklet and samples to those who may want to further investigate the de-



THE UNIVERSAL STEEL CORNER-BEAD.



UNIVERSAL STEEL CORNER-BEAD IN USE.

repairs many times its cost to the owner. The Universal bead preserves and improves the beauty of the decorations, is absolutely rustproof, prepares the corner for the plasterer, thus saving time and expense; will fit any thickness of grounds, and forms a perfect key, locking and binding the plaster and steel together. It is

vice. The two accompanying illustrations, to which reference is made above, present views of the bead in actual size and in application to a corner.

The Board of Trade of Nashville, Tenn., has issued a folder giving facts about the advantages of Nashville.

Construction Department

TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY.

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ADDRESS FULLY.

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

WRITE DIRECTLY.

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

ALABAMA.

Birmingham—Coal Mines.—Gaines-Bissell Coal Co. has been incorporated with an authorized capital stock of \$50,000. S. J. Gaines is president; F. M. Van Wormer, vice-president, and C. S. Bissell, secretary-treasurer.

Birmingham—Land Improvement.—Chartered: West End Building Co., with C. W. Mills, president; E. P. Rosamond, vice-president, and A. J. Rowan, secretary; authorized capital stock \$10,000.

Birmingham—Land Improvement.—Mountain Terrace Land Co. has been organized with \$120,000 capital stock for the development of a suburban residence section. It proposes to expend \$200,000 in improvements to the tract, paving the streets with bitulithic, installing water mains, electric and gas lights, sewerage, etc., and contracts for paving work, etc., will shortly be let. Robert Jemison, Jr., of Birmingham is president; T. O. Vinton of Memphis, Tenn., vice-president and general manager; Hill Ferguson of Birmingham, secretary.

Birmingham—Coal and Iron Mines.—It is reported that the Sloss-Sheffield Steel & Iron Co. will increase the output of coal from its Bessemer mines from 150 to 500 tons daily; also that the company will increase the capacity of its iron mines at Irondale; present output 400 tons.

Gadsden—Bridge Construction.—It is reported that the Louisville & Nashville Railway is having surveys made for the construction of proposed bridge across the Coosa river near Gadsden. W. H. Courtenay, Louisville, Ky., is chief engineer.

Gadsden—Sewerage System.—West Construction Co., Chattanooga, Tenn., has contract at \$27,778 for building nine miles of pipe sewers, for which \$30,000 was previously reported available.

Montgomery—Land Improvement.—W. M. Marks, Jr., has purchased at \$75,000 1358 acres of land adjacent to the city, which will be developed for the location of manufacturing.

Montgomery—Street-paving.—Bids for paving about 22,500 square yards of street with vitrified brick, bitulithic, asphalt or gravel will be received until June 18; R. S. Williams, city treasurer.*

Prattville—Dam-construction.—A 150-foot concrete-steel arch dam, 16 feet high, approximate cost \$10,000, will be constructed, replacing dam recently damaged by earth settling 20 feet. The dam furnishes power to the Prattville Cotton Mill & Banking Co. and Continental Gin Co., Daniel Pratt, manager. Prof. Edgar B. Kay of Tuscaloosa, Ala., was previously mentioned as making the necessary surveys. About 350 horse-power will be furnished, and 1050 cubic yards concrete, 15,000 pounds structural steel, 13,000 pounds reinforcement (steel), 1000 cubic yards excavation, 500 cubic yards puddle and two 4'4"x9' sluice gates will be required.

Talladega—Saw-mill.—Clyde Lumber Co., reported incorporated last week, will erect saw-mill with a capacity of 30,000 feet. About \$20,000 will be expended.

ARKANSAS.

Augusta—Cotton Gin.—J. W. Riven, W. P. Yarbro, T. D. Wilkes and others have incorporated the Revells Gin Co. with \$3500 capital stock.

Booneville—Electric-light Plant.—A Robbeck of the Robbeck Milling Co. has been granted a 30-year electric franchise.

Devall's Bluff—Freight Barges.—Devall's Bluff Navigation Co. has been organized with \$20,000 capital stock for the operation of freight barges on the White river.

Eureka Springs—Electric-light and Power Plant.—Kings River Electric Light & Power Co. has been incorporated with \$75,000 capital stock by G. W. Matthews, C. M. Barnes and A. E. Barnes. Messrs. Matthews and Barnes were mentioned last month as to construct electric-light and power plant, for which franchise had been secured.

Fort Smith—Street-paving and Sewerage.—S. A. Mitchell of Kansas City, Mo., has been engaged to make surveys, estimates and specifications for proposed paving and sewer work. It was recently reported that an expenditure of \$500,000 was contemplated for this work.

Fort Smith—Bridge Construction.—The St. Louis, Iron Mountain & Southern Railway, it is reported, is having plans prepared for the construction of a double-track bridge over the Arkansas river at this point, replacing present single-track bridge. It is stated that about \$500,000 will be expended; A. I. Baker, Baring Cross, Ark., engineer of bridges and buildings.

Little Rock—Coal Mines.—It is reported that Herman Jurgens and Guy M. Mallon of Cincinnati, Ohio, have purchased \$600,000 worth of anthracite coal lands in Arkansas.

Little Rock—Cold-storage Plant.—Little Rock Trading Co. has been incorporated with \$25,000 capital stock by Robert Hopkins, Henry G. Wernimont and James R. Wilson to establish cold-storage plant.

Nashville—Timber Development.—C. C. Henderson of Arkadelphia, Ark., and associates have purchased between 35,000 and 40,000 acres of timber lands in Arkansas along the line of proposed railroad from Nashville to Ashdown, Ark., and will establish saw-mills with a daily capacity of 50,000 feet.

Paris—Knitting Mill.—W. H. Jones is considering the erection of a knitting mill. He has not engaged engineer in charge nor contracted for machinery, and invites correspondence in this connection.*

Paris—Coal Mine.—Paris Coal Co., Joe Pendleton, manager, is arranging for developing additional coal properties.

Pine Bluff—Bridge Construction.—Jefferson county is arranging for construction of bridges in various parts of the county—one at Vinegar Hill 234 feet long, one at Flat bayou 375 feet long, one across Little Sallis bayou 160 feet long, one across Big creek 110 feet long, one across Eastwood bayou 160 feet long and one across prong of Eastwood bayou 80 feet long. Address Judge Kerwin.

Pine Bluff—Hardwood Mill.—Cornerstone Lumber Co., recently reported incorporated under Memphis, Tenn., with \$350,000 capital stock, will establish hardwood mill near Pine Bluff, where it owns 15,000 acres of timber land; main office, Memphis, Tenn.

Rosie—Grist Mill and Cotton Gin.—B. H. Dodd, W. M. Wheeler, M. E. House, J. W. Taylor and associates have incorporated the Rosie Mill & Gin Co. with \$4000 capital stock.

DISTRICT OF COLUMBIA.

Washington—Wagon Works.—The Rock Creek Auto and Wagon Works, 2613 Pennsylvania avenue N. W., has awarded contract to Brennan Construction Co., foot 31st street N. W., for the construction of additional building at its works; two stories and basement, 73x64 feet; brick; steel beams; cast-iron columns; slag roof; electric wiring and fixtures; sanitary plumbing; hand elevator; A. B. Mullet & Co., architects, 1411 F street N. W.

FLORIDA.

Elotse—Saw and Planing Mill, etc.—Inland Transportation & Lumber Co. of Florida, recently reported incorporated, will erect saw and planing mill and hotel. The Wm. H. Evers Engineering Co., Cleveland, Ohio, are engineers in charge. Crosby Thompson of Winter Haven, Fla., is manager.

Green Cove Springs—Public Improvements. Town has voted proposed bond issue for public improvements. Address Town Clerk.

Jacksonville—Export Company.—Patterson Export Co. has been incorporated with \$100,000 capital stock. E. C. Patterson is president; John A. Ewing, vice-president, and J. F. Martin, secretary-treasurer.

Miami—Public Improvements.—City has voted affirmatively the proposed \$100,000 bond issue for public improvements. It is proposed to utilize \$30,000 for sewers, \$20,000 for streets, \$20,000 for city building, \$5000 for fire building, \$10,000 for fire equipment and \$15,000 for public dock and parks. John Sewell is mayor.

Starke—Saw-mill.—H. G. Rembert of Gainesville, Fla., it is reported, has purchased 7000 acres of timber land in Bradford county and begun the erection of saw-mill with a daily capacity of 25,000 feet.

GEORGIA.

Acworth—Water-works and Electric-light Plant.—City will vote on a \$23,000 bond issue June 9, instead of \$17,000 issue as mentioned recently, for constructing water-works and electric-light plant.

Atlanta—Pottery.—It is proposed to establish plant for the manufacture of jugs to have a daily capacity of from 3000 to 6000 gallons. R. A. Thompson, 318 Empire Building, is interested.*

Atlanta—Land Improvement.—Chartered: Atlanta Real Estate Syndicate, with \$250,000 capital stock, by Charles T. Page, A. C. Moreland, Thomas M. Goodrum and associates.

Atlanta—Mill Machinery.—De Loach Mill Manufacturing Co., manufacturer of mill machinery, contemplates building a new plant. Concrete or cement blocks will probably be used in the construction. A. A. De Loach is president.*

Ashburn—Cottonseed-oil Mill.—It is reported that a cottonseed-oil mill will be established, and D. J. Bruton of Thomasville, Ga., is promoting the enterprise.

Bufoed—Cottonseed-oil Mill and Fertilizer Factory.—Bufoed Oil & Fertilizer Co. has been incorporated with \$100,000 capital stock. Site has been secured on which to erect the necessary buildings. W. B. Shadburn is president; T. C. Burton, vice-president; L. P. Pattillo, secretary-treasurer.

Cedartown—Railroad Repair Shops, etc.—Central of Georgia Railway is reported as completing arrangements for proposed improvements representing an expenditure of \$125,000, to include the erection of shops to be equipped with new machinery, a 15-stall roundhouse with outside tracks with pits, turntables, seven yard tracks and six repair tracks for damaged rolling stock and a track for lumber yard. H. M. Steele, Savannah, Ga., is chief engineer.

Dallas—Water-works.—City has voted affirmatively the proposed \$20,000 bond issue for constructing water-works. Address The Mayor.

Dalton—Cotton Mill.—Incorporated: Elk Cotton Mills, with capital stock of \$165,000, by M. C. Foster, F. T. Hardwick, W. H. Foster, R. L. Harlan and others. Company intends building a 7500-spindle yarn mill. This project referred to last week.

Doublerrun—Railroad Repair Shops.—Hawkinsville & Florida Southern Railway, it is reported, has secured site on which to locate proposed railroad shops. H. E. Rhodes, Hawkinsville, Ga., is general manager.

Griffin—Power-plant Improvements.—It is reported that the High Falls Power Co. will expend about \$50,000 in the installation of new equipment in power-house.

Junction City (P. O. Paschal)—Coffin Factory and Saw-Mill.—Junction City Manufacturing Co., reported incorporated last week with \$10,000 capital stock, will operate coffin factory and saw-mill. Buildings have been erected. C. W. Moore is secretary-treasurer.*

Marietta—Sewerage System.—City will vote June 16 on the issuance of \$25,000 of bonds for constructing sewerage system; E. P. Dobbs, mayor.

Savannah—Street-paving.—Southern Concrete Construction Co. has contract at 94 cents a square yard for laying artificial-stone sidewalks on Gwinnett street, approximating 2000 square yards.

Talbotton—Electric-light Plant.—Town will vote June 25 on \$10,000 bond issue for constructing electric-light plant mentioned recently; H. B. Himbrough, clerk.

Thomasville—Street-paving.—City will vote July 3 on a \$30,000 bond issue for paving six blocks in the business section. Address The Mayor.

Washington—Cotton Mill.—It is proposed to organize a company with capital stock of \$1,000,000 for building a cotton mill to be operated by electricity from the water-power-electrical plant which the Anthony Shoals Power Co. is planning to establish.

Waycross—Water-works, Sewerage System and Street Improvements.—City will vote on the issuance of \$35,000 of bonds for extending water mains and sewerage system and \$40,000 for street improvements. Address The Mayor.

Wrightsville—Hardware.—J. H. Rowland, T. G. Holt, J. V. Snell, T. L. Martin and R. R. Martin have applied for a charter for the People's Hardware Co., with \$10,000 capital stock.

KENTUCKY.

Ashland—Street Paving.—Nashville Roofing & Paving Co., Nashville, Tenn., has contract for 70,000 square yards of vitrified brick paving.

Barboursville—Coal Mines.—Faulkner, Gaddie & Stanfill have purchased several hundred acres of coal land near Barboursville for development purposes.

Berry—Bridge.—It is reported that the Harrison Fiscal Court has ordered a bridge 253 feet long and 14 feet wide built across South Licking river. L. W. Swan is commissioner.

Chesley—Coal Mines.—Brasher Coal Co., which recently purchased the Oak Hill Coal Co., operating mines with a daily output of 500 tons, will make improvements to double the capacity. The installation of electric haulage is being contemplated, though plans have not matured. The company also operates a mine at Madisonville, Ky., daily capacity 600 tons. John B. Brasher is president; M. D. Brasher, vice-president; Ira Parish, secretary, and E. L. Shell, superintendent, who has charge of improvements; main office, Madisonville, Ky.

Danville—Electric-light Plant.—Commissioners of Kentucky School for the Deaf have let contract to E. O. Nelson for installation of proposed electric-light plant; cost \$6500.

Henderson—Electric-power Plant.—Henderson City Railway, it is reported, will arrange at once for the installation of new machinery at power plant, to include 250-horse-power boiler, 250-horse-power engine and 150-kilowatt generator. It is stated that extensions and improvements to track and overhead work are also being considered. H. W. Richardson, 209 Keller Building, Louisville, Ky., is secretary.

Hopkinsville—Flour Mill.—Climax Milling Co. has been incorporated with \$50,000 capital stock by R. A. Rogers, M. L. Eib, Rufus K. Ward, W. T. Cooper and others to erect a 350-barrel flour mill. A company was reported last month to be organized with R. A. Rogers, manager, to erect flour mill.

Kuttawa—Electric-light and Ice Plant.—Otho Fowler and associates are considering the installation of a 1500-incandescent-capacity electric-light plant and ice plant in connection; the necessary operating power is available.*

Lexington—Boiler Factory.—Reports state that Henry W. Locke, representing Locke Bros. of Muncie, Ind., has secured option on site for the location of boiler factory to cost \$50,000.

Lexington—Dairy.—Parker Dairy Co. has been incorporated with \$3000 capital stock, and privilege of increasing to \$10,000, by J. H. Parker of Lexington, William McCann, E. T. Pollard of Cropper, Ky., and associates.

Louisville—Culvert-manufacturing.—Kentucky Culvert Manufacturing Co. has been incorporated with \$10,000 capital stock by J. Fegenbush, William F. Fegenbush, John Fegenbush and others.

Maysville—Street-paving.—Henkel & Sullivan, Cincinnati, Ohio, have contract at \$1.66 a square yard for paving various streets, previously mentioned.

Newport—Steel Plant.—It is reported that the Newport Rolling Mills, J. A. Andrews, president, will erect a new steel plant at a cost of \$500,000.

Oak Hill—Coal Mines.—It is reported that John B. Brasher of Madisonville, Ky., has purchased the property of the Oak Hill Coal Co. and will make improvements, increasing the output.

Paducah—Electric-light-plant Improvements.—City is reported as to expend \$20,000 in improvements to electric-light plant. Address The Mayor.

Stanton—Cement Mining.—New York capitalists. It is reported, have purchased from Mrs. Kate Bohanlian and James Patrick 700 acres of land near Stanton containing cement rock, and will arrange at once for development.

Stearns—Coal Mines.—Rock Creek Coal & Lumber Co. of Somerset, Ky., will arrange at once for the development of 1800 acres of coal land on Rock creek near Stearns.*

LOUISIANA.

Crowley—Rice Mill.—United States Rice Milling Co. has been organized with Jac Trautman of New Orleans, La., president; W. H. Hunter, Jr., vice-president, and W. E. Lawson, secretary-treasurer, both of Crowley. It has purchased, will improve and operate the mill of the Eagle Rice Milling Co.; daily capacity 1200 bags of rice.

Labadieville—Iron Bridge.—St. Philomena Bridge Co., Ltd., has been organized with \$18,000 capital stock to build an iron bridge across Bayou Lafourche near Labadieville. Eugene Constantin is president; Robert C. Martin, Sr., vice-president; Rev. Augustin Ravolre, secretary-treasurer.

Lake Charles—Veneering Plant.—Maurice Rosenthal will install veneering equipment in shingle mill.*

New Orleans—Chair Factory, etc.—The New Chair Co. has been incorporated with \$50,000 capital stock to manufacture chairs, office and bank fixtures. Ben H. Conart is president; Harry H. Waters, vice-president, and Emil Rubenstein, secretary-treasurer.

New Orleans—Reclaiming Marsh Lands.—Delta Land Co. has been incorporated with \$1,500,000 capital stock to levee and drain 45,000 acres of salt marsh lands on the river front in St. Bernard parish. Edward Wisner is president; I. R. Holmes, vice-president; John Ericson, secretary, and N. A. Baker, treasurer.

New Orleans—Hollow-concrete Blocks.—Hollow Concrete Block Manufacturing Co. has been incorporated with \$50,000 capital stock. Albert Godchaux is president; Luigi del Orto, vice-president; A. Zolag, secretary, and Arturo del Orto, treasurer.

New Orleans—Levee Work.—Helgeson Bros., Donovan & Daly have contract at 26.9 cents per cubic yard for work on the Willow Point loop levee. Bids on the Sycamore levee work in Concordia parish have been rejected and will be readvertised to be opened June 5 by the board of commissioners of the fifth Louisiana levee district, J. T. McLellan, president, Tallulah, La., but proposals will be opened at United States engineer office, 108 West Crawford street, Vicksburg, Miss.*

New Orleans—Construction Company.—Southern Construction Co. has been incorporated with \$2000 capital stock. Alfred H. Wente is president; F. A. Warner, vice-president, and William B. Grant, secretary-treasurer.

New Orleans—Planting Company.—Incorporated: Choctaw Planting Co., Ltd., with \$5000 capital stock. D. J. Forest is president; E. J. Brand, vice-president; A. J. Brand, secretary, and L. E. Brand, treasurer.

New Orleans—Amusement Resort.—A company has been organized with \$100,000 capital stock for the establishment of amusement resort on seven and one-half acres of land recently purchased. It is proposed to erect casino, skating rink, scenic railway, a 75-foot tower surmounted by electric lights, etc. W. G. Tebault is president; John P. Sullivan, secretary, and J. L. Onorato, treasurer.

Shreveport—Oil-pipe Lines.—It is reported that the Citizens' Pipe Line Co., W. B. McCormick, secretary, will begin constructing pipe line within 60 days for conveying natural gas from its wells at Annanias to Texarkana, Ark., and Texas, for which franchise has been secured.

Tallulah—Land Improvement.—Dabney Land Co. has been incorporated with \$35,000 capital stock. M. Dabney is president; W. M. Scott, vice-president; W. M. Murphy, secretary-treasurer.

MARYLAND.

Baltimore—Printing Plant.—Referring to printing plant to be erected at Eutaw street and Cider alley by the Summers Printing Co., 17-19 South Howard street, and the contract for the construction of which was recently reported as having been awarded to J. H. Walsh & Bro., 321 Clay street, the building is to be five stories and basement, 19.10x103.3 feet; brick with stone trimmings; reinforced-concrete frame; slag roof; electric wiring and fixtures; sanitary plumbing; heating system; elevator; cost about \$35,000.

Baltimore—Real Estate.—The H. Cohen Real Estate Co. has been incorporated with capital stock of \$20,000 to deal in real estate by Harry and Morris Cohen, 808 East Baltimore street; Louis Cohen, Jacob Sokolove and Jacob Goldstein.

Baltimore—Can Factory.—The Southern Can Co., E. Everett Gibbs, president, manufacturer of tin cans, 2126 Boston street, has increased its capital stock from \$5000 to \$50,000.

Baltimore—Ice Plant.—Louis Eckels & Sons Ice Manufacturing Co., 804-806 East Eager street, has been incorporated with capital stock of \$10,000 by Louis Eckels, Henry P. Eckels, August E. Eckels, Frederick W. Eckels, Philip W. Eckels and Wm. P. Eckels.

Baltimore—Iron Works.—Bartlett, Hayward & Co., 1416 Continental Building, Baltimore and Calvert streets, will erect a large addition to its works at Pratt, Scott and McHenry streets.

Baltimore—Building Supplies.—The Patapasco Supply Co. has been incorporated with capital stock of \$10,000 to deal in all kinds of building supplies by Charles F. Behrens, 3002 Walbrook avenue; L. Z. Behrens, C. Melvin Purdy, 2122 Chelsea Terrace; George A. McCauley, 533 North Calhoun street, and John J. Carlin, 203 St. Paul street.

Catonville—Land Improvement.—Rockland Realty Co. has been incorporated with \$65,000 capital stock by Chas. P. Condy, Clarence W. Perkins, both of 44 Maryland Life Building, Baltimore, Md.; Philip H. Hoffman, 342 Equitable Building, Baltimore, Md., and associates. It has purchased 200 acres of land at Franklin and Johnnycake roads, which will be developed for residential purposes.

Cumberland—Coal Mines.—Cumberland & George's Creek Coal Co. has been incorporated with \$350,000 capital stock by D. J. Lewis, D. James Blakiston, Benjamin A. Richmond of Cumberland, Frederick S. Hannah and Arthur Bailey of New York, N. Y.

Cumberland—Paving.—LeFevre & Edwards, West Virginia Central Building, have contract at \$44,190.96 for curbing with concrete and paving sidewalks and driveway with brick the entire length of Maryland avenue; length of curb about 9500 feet; driveway, yardage 16,500 feet. The firm named wants to correspond with some expert brick pavers.

Flintstone—Saw-mill.—Anthracite Lumber Co. will install mill, replacing plant reported burned; daily capacity 10,000 feet of oak and pine lumber. Equipment has been purchased; main office, Freeland, Pa.

Hagerstown—Railroad Repair Shops.—The Western Maryland Railroad Co. is arranging for erection of new repair shops, and plans for the buildings have been prepared. The machine and erecting shops will be 100x240 feet, of brick and steel; engine and boiler house 30x50 feet, provided with engine pits 36 feet long, each connecting with a transfer table from the outside, which will be operated by electricity; blacksmith shop 50x80 feet, of brick, provided with patented steel rolling doors and equipped with the most modern tools and appliances; J. W. Galbreath, assistant engineer, 523 North Charles street, Baltimore, Md., engineer in charge.

Hancock—Brick Works.—J. T. Bridges, Jos. B. Pyles of Hancock, Charles A. Ritchey, Wiley Ritchie, H. N. Rosen and F. Wilbur Bridges of Hagerstown, Md., have organized a company for the manufacture of shale pressed bricks; daily capacity 22,000.

Perryman—Grist Mill, etc.—Lee & Holloway will rebuild grist mill and storage-house reported burned. A building 100x30 feet will be erected. About \$2500 will be invested.

MISSISSIPPI.

Clarksdale—Lumber Plant.—Chartered: Hudson & Dugger, with \$100,000 capital stock, by Charles Hudson, W. P. Holland and J. F. Dugger.

Jackson—Cotton Compress.—J. W. Mann, successor to the Mann Building & Constructing Co., has contract to erect \$100,000 cotton

compress for the Gulf Compress Co. of Memphis, Tenn., recently mentioned.

Meridian—Water-works.—The Meridian Water-Works Co. It is reported, has accepted the city's offer of \$250,000 for the purchase of local water-works plant, and arrangements will be made at once by the city for taking over and operating same. Address The Mayor.

Newton—Street Improvements.—City is reported as to expend \$9000 in street improvements. Charles L. Wood is city engineer.

Vicksburg—Electric-light and Power Plant.—Houston Bros. have applied for franchise to construct electric-light and power plant.

Vicksburg—Street-paving.—City will shortly ask for bids for paving various streets. Address The Mayor.

MISSOURI.

Cape Girardeau—Sewerage System.—Arrangements have been completed for the construction of proposed sewerage system in sewer district No. 1, and bids for same will be received until July 2; Granberry Jackson, Nashville, Tenn., engineer in charge; William H. Coerver, mayor.*

Clayton—Publishing.—Associated Printing & Publishing Co. has been incorporated with \$50,000 capital stock by Max Ruler of Clayton, Frank J. Smythe of St. Louis, Mo.; Johann W. George of Webster Groves, Mo., and associates.

Joplin—Limekilns.—L. E. Lindsay and others have organized company to manufacture lime from limestone found on Shoal creek.

Joplin—Monument Works.—G. C. Kellogg of Carthage, Mo., contemplates organizing company with \$25,000 capital stock for making monuments from native stone.

Joplin—Woodenware Novelties.—Fred M. Davis has erected building and is installing machinery for the manufacture of woodenware novelties.

Kansas City—Tinware Factory.—Page Manufacturing Co., manufacturer of tin utensils and wares, has purchased site adjoining present plant and will erect four-story addition.

New Madrid—Reclaiming Marsh Lands.—New Madrid county has begun the reclaiming of marsh lands in various parts of the county, and has formed 18 drainage districts, No. 18 having just been organized. This district will necessitate the construction of a ditch about 14 miles long, from 4 to 14 feet deep and from 20 to 32 feet wide, and contract for ditching work will be let July 9. Address L. C. Phillips, clerk, New Madrid, or Seth S. Barnes, Marston, Mo.*

St. Louis—Construction Company.—Incorporated: Taxis-Harvey Construction Co., with \$10,000 capital stock, by William A. Harvey, Augusta J. Mueller and others.

St. Louis—Construction Company.—Chartered: Southern Construction Co., with \$20,000 capital stock, by Oliver J. Funsch, H. J. Oribas and others.

St. Louis—Glue Factory.—Consumers' Glue Co. has been incorporated with \$10,000 capital stock by Ernest W. Hilgeman, Lydia Hilgeman and Oliver T. Bailey.

St. Louis—Grocers' and Druggists' Sundries.—Sperry Manufacturing Co. has been incorporated with \$15,000 capital stock by Restore C. Sperry, Charles Gilbert Sperry and Walter M. Hill, to manufacture grocers' and druggists' sundries.

St. Louis—Manufacturing.—Wells Manufacturing Co. has been incorporated with \$21,000 capital stock by Edmund F. Brown, August Gerling, Henry J. Gerling and others.

St. Louis—Skirt Factory.—Incorporated: Kraft-King Skirt Manufacturing Co., with \$5000 capital stock, by Herman Denckhoff, Edward H. Kraft, Delos M. King and others.

St. Louis—Wire-rope Plant.—It is reported that the Broderick & Bascom Rope Co. has let contract for the erection of an additional wire-rope plant.

St. Louis—Mail Boxes.—Southern Mail Box Co. has incorporated with \$10,000 capital stock to manufacture mail boxes, electric appliances, etc.; incorporators, S. J. Carleton, Edmund W. Kimber and Charles W. Ohrndorf.

NORTH CAROLINA.

Asheville—Dam Construction.—Asheville School has begun the rebuilding of dam, previously mentioned, and same will be completed by the middle of August; reinforced concrete, 60 feet high and 300 feet long, to form a lake one mile long and one-quarter mile wide; cost \$21,000; Faragher Construction Co., Cleveland, Ohio, engineer in charge; N. M. Anderson and Charles A. Mitchell, principals.

Charlotte—Machine Shop.—W. R. Robertson has let contract to E. H. Overcash for the erection of two-story brick building to cost

\$12,000 to be occupied by the W. G. Jarrell Machine Co., reported incorporated last week to operate machine shop.

Charlotte—Cotton-waste Mill.—South Atlantic Waste Co. will rebuild its cotton-waste mill recently reported burned at a loss of \$150,000.

Concord—Cotton Mill.—Cannon Manufacturing Co. has increased capital stock from \$200,000 to \$1,000,000 and definitely decided to build the additional mill recently reported. This new mill will have 30,000 spindles and 400 looms. Engineer in charge has not been selected nor have plans and specifications been decided.

Crouse—Cotton Mill.—It is reported that M. M. Burke will build a cotton mill of 2000 spindles.

Dealville—Tannery, Harness and Collar Factory, etc.—Deal Tanning Co. has been incorporated with \$50,000 capital stock to take over the tanning business of John M. Deal, harness and collar factory of Deal Harness Co. and mercantile business of A. C. Deal. It is proposed to enlarge and operate the plants. A. C. Deal is secretary-treasurer and general manager.

Fayetteville—Textile Print Mills.—It is reported that Adam Catterall, F. M. Cook, N. B. Catterall, A. D. Davis and others, all of New York, will build textile print mills at Fayetteville.

Fayetteville—Cotton Mill.—Victory Manufacturing Co., lately reported as proposed, has organized with H. W. Lilly of Fayetteville, president; Adam Catterall of New York, vice-president; Fletcher M. Cook of New York, secretary-treasurer, and W. D. McNeill of Fayetteville, general manager. Company has capital stock of \$200,000, and will build mill of 25,000 spindles and 800 looms to manufacture print cloth. Electrical power (1000 horse-power) will be purchased from local company. Prices on machinery and supplies are invited. Address the treasurer, Fletcher M. Cook, at 127 Donaldson street, Fayetteville.*

Greensboro—Street Improvements.—City contemplates expending \$40,000 during the year in grading, curbing and macadamizing streets. T. J. Murphy is mayor.

Lexington—Veneer Factory.—Lee Veneer Co. has been organized with \$10,000 capital stock. H. B. Varner is president; Z. I. Walser, vice-president, both of Lexington, and L. V. Phillips, secretary-treasurer.*

Lexington—Ice Plant.—E. G. Couch, J. L. Peacock and Thomas Eans will establish ice plant.

Lincolnton—Cobalt Mines.—It is reported that Thomas A. Edison of Orange, N. J., has discovered cobalt deposits in North Carolina and will arrange for developments.

Lockville—Power Plant.—Chartered: Lockville Power Corporation, with an authorized capital stock of \$100,000, by W. H. Urquhart, S. D. Crenshaw, T. C. Williams, Jr., S. W. Travers, S. T. Morgan, all of Richmond, Va. Mr. Urquhart will be president of the company.

Lowell—Water-power-Electrical Plant.—It is reported that the Spencer Mountain Mills has about completed the construction of its dam to develop 1500 horse-power, and will proceed with the erection of an electric plant to transmit the power by electricity to its cotton factory of 4368 spindles, which equipment will be increased when the new power plant is completed. All contracts for construction and machinery are said to have been awarded.

Lumberton—Cotton Mill.—Dresden Cotton Mills, recently reported organized, etc., will build structure one story high with basement, about 80x125 feet; also boiler and engine room 40x80 feet. Machinery to be installed: 10,000 spindles for manufacturing yarns, cross-compound condensing Corliss engine and rope drive. Company will probably act as its own engineer. Capital stock is \$200,000, and H. B. Jennings is manager.

Maxton—Cottonseed-oil Mill.—Elba Manufacturing Co. of Charlotte, N. C., will build a branch plant, and contracts for machinery, building materials, etc., have been let. Company will increase its capital stock for this purpose. (Mention was made last week of this enterprise.)

Monroe—Telephone System.—Union Telephone Co. has been chartered by J. N. Price and J. D. Hemby.

Mooreville—Electric-light and Power Plant.—The electric-light and power plant to be constructed by the town, for which G. B. Bird, civil engineer, Biltmore estate, Asheville, N. C., was mentioned as making surveys, will have an alternating-current arc and incandescent-lighting 75-kilowatt capacity plant. The generating equipment, including engine and boiler, has been purchased. Line construction has not been pro-

vided for; size of building not decided on. It will be operated as the Mooresville Electric Light and Power Plant; C. E. Waddell of Bltmore, N. C., consulting engineer on the electrical work.

North Wilkesboro — Drug Factory. — Chartered: Dr. Terry Medicine Co., with an authorized capital stock of \$60,000, by P. E. Dancy, W. F. Trogden and others.

Roanoke Rapids — Steel Bridge. — Roanoke Rapids Bridge Co., referred to last week as incorporated with \$50,000 capital stock, expects to award contract on May 31 for the construction of its proposed steel bridge across the Roanoke river near Roanoke Rapids at a point between Clarksville, Va., and the sea. H. C. Cooper and John L. Patterson of Roanoke Rapids and T. L. Emory of Weldon, N. C., are the incorporators.

Roanoke Rapids — Water-power-Electrical Plant. — Roanoke Rapids Power Co. has about completed plans and specifications for the construction of a concrete dam and the erection of an electric-power plant, and bids are expected to be invited within two weeks. This development will furnish about 10,000 horse-power additional to the 5000 horse-power the company is now distributing. It was referred to in this column last September, and about \$400,000 was then stated as the estimated cost. It is understood that a company will be organized to build a large cotton mill in connection with this further development of the Roanoke Rapids power.

Salisbury — Mining. — It is reported a company has been organized with \$3,000,000 capital stock for the development of mining properties in Rowan county with A. M. A. Richardson of Paterson, N. J., president; Otto Germer of Cincinnati, Ohio, vice-president, and W. M. Richardson of New York, secretary.

Selma — Knitting Mill. — Selma Knitting Mills, reported organized in March with capital stock of \$25,000, has begun erection of brick building, 40x190 feet, and awarded contract for knitting machines and power plant; M. C. Winston, president.

Statesville — Building Materials. — Mundy-Tengue Company has been incorporated with an authorized capital stock of \$25,000 to deal in building materials.

Sweepsonville — Cotton Mill. — It is reported that the Virginia Cotton Mills has begun the construction of a stone dam to develop additional power, and will build a 300-foot extension to present mill, providing for installing more textile machinery; present equipment 10,000 spindles and 300 looms.

Washington — Sand-lime-brick Works. — Novelty White Brick Co. has been incorporated with \$100,000 capital stock to manufacture sand-lime brick, having a daily capacity of 20,000. A frame building 45x90 feet will be erected. Machinery has been purchased. T. H. Latham is president; C. H. Wallace, secretary-treasurer, and W. E. Jones, general manager.

SOUTH CAROLINA.

Conway — Machine Shop, etc. — Conway Iron Works, J. L. Dozier, manager, operating machine shop, general blacksmith shop and repair shop for buggies, wagons, etc., will rebuild plant recently burned. A frame building, 40x70 feet, with ell, will be erected. New machinery will be installed, including lathes, drill press, shaper, pipe and bolt threading machines.

Florence — Chemical Works. — Chartered: Soclean Chemical Works, with \$3000 capital stock.

Greenville — Cotton Gin. — Taylor Ginning Co. has been incorporated with \$4000 capital stock by S. J. Taylor, T. W. Boyle and F. Mishoe.

Leesville — Mattress Factory. — A company is being organized for the manufacture of cotton, wool and excelsior mattresses, and E. J. Etheredge is interested.

Marion — Cotton Plow. — It is reported that S. A. Lewis of Latta, S. C., manufacturer of the Lewis cotton plow, is considering the removal of plant from Latta to Marion and the organization of stock company to operate on an enlarged plant.

Marlboro — Lumber Company. — W. C. Smith, D. D. McColi, Jr., and Hugh L. McColi have incorporated the Marlboro Lumber Co. with \$40,000 capital stock.

Ninety-Six — Electric Light Plant and Water-works. — Town is considering the installation of electric-light plant and water-works. Address Town Clerk.

TENNESSEE.

Bristol — Bottling Works. — T. Asbury Wright, Jack Tarwater and J. L. Tarwater have incorporated the Coca-Cola Bottling Works with \$25,000 capital stock.

Bristol — Railroad Repair Shops. — Norfolk & Western Railway, it is reported, has begun

enlarging shops and making other improvements. C. S. Churchill, Roanoke, Va., is chief engineer.

Camden — Planing, Saw and Grist Mill. — Lewis & Vick have begun the erection of planing mill, saw-mill and grist mill. It is stated a cotton gin will be erected later.

Chattanooga — Lumber. — Chartered: People's Lumber Co., with \$4000 capital stock, by J. F. Nipper, W. R. Sullivan, W. M. Settles and others.

Chattanooga — Paint Works. — American Tri-Metallic Paint Co., recently reported organized, will build plant to cost about \$150,000. It will erect one building 36x132 feet, two buildings 36x140 feet, four stories, including basement; latter to be of solid concrete walls and building above to be of concrete blocks. Modern machinery will be installed for an annual output of 30,000 barrels of dry paints and 2,500,000 gallons of ready-mixed paints. Equipment will include two self-stoking boilers of at least 150 horse-power each; drying, crushing, pulverizing and probably bolting machinery in dry mill, and machinery for ready-mixed paint in wet mill; electric plant for lighting buildings; steam plant for heating structures; cooperage machinery for manufacturing kegs and barrels, and printing department for issuing advertising data. Raw materials will be taken from a tract 53 miles from Chattanooga containing oxide of iron, silicate of iron, aluminum and dioxide of manganese. The company will be in the market for all kinds of machinery needed in this plant. H. Walter Doty, Findlay, Ohio, is president; Eli Myers of Lebanon, Ind., is general manager, and H. V. Stapleton of Sandusky, Ohio, is superintendent in charge of construction work. Messrs. Myers and Stapleton will locate permanently at Chattanooga after June 1.

Chattanooga — Water-works. — It is reported that S. M. Campbell, A. T. Moore and associates contemplate organizing company with \$10,000 capital stock for the installation of water-works at Mission Ridge.

Chattanooga — Street Work. — West Construction Co. has been awarded contract for chert work on certain streets. Bids for paving work and the extension of A street from 11th to Market have been opened, but contract not awarded; Robert Hooke, city engineer.

Chattanooga — Laundry. — Uneda Laundry, recently reported incorporated with \$10,000 capital stock, will erect a building 42x135 feet of concrete; Bearden & Foreman, architects. Frank Steffner is president; B. F. Travis, vice-president, and S. G. Simmons, secretary.

Clarksville — Bridge. — Reports state that Montgomery county will build a bridge across the Cumberland river near Clarksville. Address County Clerk.

Cumberland Gap — Portland-cement Plant. — It is reported that J. S. Bartlett of Middletown, Ky., and W. J. Oliver of Knoxville, Tenn., are considering the establishment of a \$1,000,000 Portland-cement plant.

Jefferson City — Woolen Mill. — Jefferson City Woolen Mills is reported as having contracted for erection of additional building and the installation of more machinery, including looms.

Johnson City — Woodworking Plant. — C. B. Allen and associates have purchased site on which to erect plant for the manufacture of interior finishings, such as doors, mantels, etc. About \$50,000 will be invested.

Knoxville — Bridges. — W. C. Crozer, city engineer, it is reported, has made plans for three bridges over First creek: one of concrete reinforced with steel and the others of steel girders.

Knoxville — Table and Chair Factory. — Knoxville Table & Chair Co. has increased capital stock from \$50,000 to \$100,000. This company was erroneously mentioned last week as a new incorporation.

Memphis — Cement-block Factory. — Cement Stone & Building Co. has been incorporated with \$10,000 capital stock by O. C. Rife, A. H. Murray, R. M. Luce and others.

Memphis — Concrete Construction. — Concrete Construction Co., recently incorporated with \$50,000 capital stock, has completed organization with E. S. Sutton, president and general manager; R. P. Woolson, vice-president, and Z. N. Estes, secretary-treasurer. Concrete blocks will be manufactured; daily capacity 2000.

Memphis — Street-paving. — It is proposed to pave Poplar street with asphalt and gravel from Manassas to Overton Park. \$20,000 of the expense to be borne by the taxpayers on that thoroughfare and the remainder by the city. J. A. Omberg, Jr., is city engineer.

Memphis — Distillery. — John Eaton & Co., it is reported, have purchased site on which to erect a distillery, warehouse, etc. About \$10,000 will be invested.

Memphis — Tobacco Factory. — Tom Morton

Tobacco Co. has increased capital stock from \$75,000 to \$250,000. Some necessary improvements will probably be made to plant.

Memphis — Viaduct. — Memphis & State Line Railroad, which is controlled by the Illinois Central Railroad, is reported as to build a viaduct on the Pigeon Roost road under the tracks of the Southern Railway; cost \$100,000. R. E. Gault, Chicago, Ill., is engineer of bridges.

Sparta — Flour Mill. — I. B. Mayberry and R. R. Richardson have purchased site on which to erect a roller flour mill of 100 barrels capacity. Water-power will be used to operate same.

TEXAS.

Ablene — Land Improvement. — David T. Bomar, J. M. C. Usher and D. J. Ehrlich have incorporated the Ablene & Northern Townsite Co. with \$40,000 capital stock.

Amarillo — Railroad Shops, etc. — Fort Worth & Denver City Railway Co. will erect machine shops, eight-stall brick roundhouse, cinder pit, coal hoist and platform, water station and 70-foot turntable. About \$29,000 will be expended. O. J. Travis, Fort Worth, Texas, is superintendent of bridges and buildings. (This item was recently mentioned.)

Austin — Steel Bridges. — Reports state that the International & Great Northern Railroad is replacing the wooden bridges along its line from Austin to San Antonio, Texas, with steel structures at a cost of \$500,000. O. H. Clittendon is resident engineer.

Bartlett — Oil Wells. — Incorporated. Bartlett Oil Co., with \$50,000 capital stock, by J. D. Sugg, N. K. Smith and A. F. Moffatt.

Beaumont — Wagon Factory. — Alexander Filgelson has begun the erection of proposed three-story brick building to be equipped as wagon factory.

Burkett — Cotton Gin. — Burkett Co-operative Gin Co. has been incorporated with \$5000 capital stock by R. B. Harris, John C. Brown, C. H. Howard and others.

Crisp — Brick Works. — Ennis-Crisp Brick Co. has been organized with A. J. Mullican, president; W. D. Farris, vice-president; Jeremiah Clarke, secretary, and J. Balbridge, treasurer; capital stock \$30,000. A. J. Mullican and associates were previously mentioned as to organize company for establishment of brick plant.

Dallas — Refrigerator and Fixture Company. — Texas Refrigerator & Fixture Co. has been incorporated with \$6000 capital stock by Park P. Simpson, Edwin W. Simpson and Lewis Oppenheimer.

El Paso — Portland-cement Plant. — El Paso Portland Cement Co. has been incorporated by A. Courchesne, R. Silberberg, James L. Marr, Felix Martinez, H. B. Stevens and associates to establish Portland-cement plant; capital stock \$500,000.

Fort Worth — Grain Elevator and Warehouse. — Smith Bros. Grain Co., mentioned last week as to erect grain elevator, will build a 65,000-bushel elevator and 35,000-bushel warehouse. About \$20,000 will be expended; Carrico & Snodgrass, architects.

Fort Worth — Terminals. — Fort Worth & Denver City Railway will expend \$90,000 in improvements, recently referred to. It will erect a brick warehouse 40x250 feet, including heat, wiring and plumbing, four platform scales, freight platform 7500 square feet, transfer platform 6000 square feet, overhead crane in wagon tracks (frame), 15-ton derrick, 16-stall brick roundhouse, two drop pits, 70 foot turntable and foundation, machinery and blacksmith shop 40x70 feet, oilhouse and store 24x10 feet, store platform, coal chutes, 20 pockets (6½ per cent. incline), complete; sandhouse, two cinder pits, water tank 16x24 feet, 100-ton track scale complete with foundation, air, water and sewer pipes, fireproof record-room 20x20 feet, 19 Ellis bumping posts. O. J. Travis is superintendent of bridges and buildings.

Frisco — Grain Elevator. — Frisco Grain & Elevator Co. has been incorporated with \$10,000 capital stock by M. F. Smith, F. B. Schrader and J. P. Smith.

Galveston — Hardwood Mill. — Chartered: Liberty Hardwood Lumber Co., with \$150,000 capital stock, by D. W. Kempner, C. H. Moore, M. O. Kopperl and others.

Gordon — Grist Mill and Cotton Gin. — E. B. Redus, N. T. Dickson and J. C. Lindsey have incorporated the Farmers' Mill & Gin Co. with \$10,000 capital stock.

Houston — Oil Wells. — Zachary Oil Co. has been incorporated with \$4000 capital stock by Alex. Freund, Charles S. Wolf, C. Grunwald and associates.

Houston — Water-works. — City will vote June 21 to issue \$34,700 to purchase the stock of the Houston Water Co. City was recently reported as having voted in favor of purchasing local plant; H. B. Rice, mayor.

Houston — Oil Wells. — Lee Hager, S. R. Perryman, A. R. Moore and associates have incorporated the Corpus Christi Oil Co. with \$15,000 capital stock.

Jacksonville — Publishing. — Incorporated: Baptist Echo Publishing Co., with \$10,000 capital stock, by J. V. Vermillion, J. M. Newburn and C. R. Steward.

Lometa — Electric-light and Water Works. — Chartered: Lometa Light & Water Co., with \$2000 capital stock, by J. M. Wilhite, John T. McCasron and others.

McKinney — Power Plant. — Texas Traction Co., which is arranging to build an interurban line between Dallas and Sherman, Texas, will erect a \$300,000 power plant at McKinney. Address Frank H. Proctor, agent, McKinney, Texas.

Morgan — Mill and Elevator. — Morgan Mill & Elevator Co. has been incorporated with \$25,000 capital stock by W. J. Watkins, R. McCauley of Morgan and Theo. Stegner of Kansas City, Mo.

Mount Enterprise — Land Improvement. — D. W. March, W. G. Ross and associates have incorporated the Mount Enterprise Townsite Co. with \$25,000 capital stock.

Palo Pinto — Grist Mill and Cotton Gin. — Chartered: Farmers' Mill & Gin Co., with \$3000 capital stock, by W. F. Bandy, E. B. Redus, N. J. Dickson and associates.

Port O'Connor (not a postoffice). — Docks, etc. — Pass Cavallo Channel & Dock Co. has been incorporated by John J. Welder, Thos. M. O'Connor, V. B. Proctor of Victoria, Texas, and F. W. Weeks of San Antonio, Texas, for the building of docks, warehouses, etc., at the terminus of the Texas Railway.

Port O'Connor (not a postoffice). — Land Improvement. — Martin O'Connor, John Welder, V. E. Proctor and associates of Victoria, Texas, will organize the Port O'Connor Townsite Co. for the development of a townsite at Port O'Connor.

Rockwall — Grain Elevator. — Incorporated: Rockwall Grain & Elevator Co. has been incorporated with \$30,000 capital stock by J. P. Smith, J. T. Howard and J. B. Vesey.

San Antonio — Shirt Factory. — B. M. Wofford, D. Johnson and associates will establish shirt factory. Building has been secured at 108 Yturri street, and 30 machines will be installed and operated by electricity. About \$10,000 will be expended.

Sweetwater — Water-works. — Town is considering the installation of water-works system. Judge Ragland can give information.

Texarkana — Wagon Works. — S. R. Lippen-cott, Mrs. Sophia Bender and E. E. Bender have incorporated the Bender Wagon Co. with \$25,000 capital stock.

Waco — Contracting Company. — Brazos Contracting & Supply Co. has been incorporated with \$10,000 capital stock by J. W. Neale, O. N. Wiel and M. L. Crossland.

VIRGINIA.

Abingdon — Timber Development. — Tug River Lumber Co., Bristol, Va., Tenn., has purchased a boundary of timber land near Abingdon, about 5,000,000 feet, and will install two circular-saw mills for its development. Contracts have all been let.

Alexandria. — Chartered: Engineering Supply Co., with Harry V. Lansdale, president; J. G. Weigel, secretary, and G. C. Esher, treasurer.

Christiansburg — Woodworking Plant. — Montgomery Land & Lumber Co. has been formed by Aaron Graham of Christiansburg and James W. Bodley of Staunton, Va., for development of several million feet of oak, yellow pine, poplar and other timbers in Montgomery county, and its manufacture into railroad timber, ties, flooring, etc. Aaron Graham is manager. Messrs. Graham and Bodley were mentioned last week as having purchased 600 acres of timber land for development purposes.

Clarksville — Water-power-Electrical Plant. — Eagle Falls Light & Power Corporation has been incorporated and organized with \$5,000 capital stock for the development of the water-power of the Roanoke river by building a dam at Eagle Falls, 12½ miles from Clarksville, the river for this distance being flanked on either side by granite bluffs about 75 feet high, so that the water will be backed up into a lake which at some points will be two miles wide. About 40,000 horse-power will be developed and transmitted by electricity for power and lighting purposes within a radius of 60 miles, including Raleigh, Durham, Henderson and others in North Carolina, as well as cities in Virginia. It is also proposed later to engage in further development at Hyco Falls on the Dan river and at Tally Falls on the Staunton river, each furnishing 5000 additional horse-power. A railroad five miles long will be built to connect with the Southern Railway at Soudan, Va., to convey the

necessary supplies and equipment used in the construction of the plant. John Bogart, 16 Exchange Place, New York, N. Y., is consulting engineer. Officers of the company are Henry G. Merry, Equitable Building, Baltimore, Md., president; Paul T. Brady of Westinghouse Electric & Manufacturing Co., New York, vice-president; Oliver Todd Smith of Westinghouse Electric & Manufacturing Co., Goldens Bridge, N. Y., secretary-treasurer. They and R. W. Lassiter of Oxford, N. C., and Henry A. Root of Butte, Mont., are the directors.

Harrisonburg—Lumber Company.—Valley Lumber Co. has been incorporated with an authorized capital stock of \$50,000. L. A. Zirkle is president; W. O. Fink, vice-president; R. S. Buckner, secretary, and W. M. Buckner, treasurer.

Honaker—Talc and Soapstone Mines.—Incorporated: Pittsburg Talc & Soapstone Corporation, with \$20,000 capital stock. Herman J. Schmitz is president; S. L. McCurdy, secretary-treasurer.

Hot Springs—Timber and Mineral Lands.—Virginia & Kentucky Land, Timber & Mineral Corporation has been chartered with an authorized capital stock of \$5,000,000. J. T. McAllister is president; W. F. Trout, secretary, and George W. Nelson, treasurer.

Leesburg—Water-works.—J. H. Leslie & Co. are estimating on the construction of water-works system, for which bids will be opened June 19.

Lynchburg—Electric-light Plant.—City is investigating the advisability of constructing municipal electric-light plant, recently referred to. H. L. Shaner is city engineer.

Mabe—Saw-mills.—Tug River Lumber Co. of Bristol, Va., Tenn., has begun the construction of two circular-saw mills, replacing hand mill reported burned. All equipment has been secured.

Manchester—Concrete Bridge.—Richmond Free Bridge Co., Clarence Vaden, secretary, has applied for the municipal privileges necessary for the construction of proposed concrete-steel bridge across the James river, replacing the Mayo bridge.

Norfolk—Street Improvements.—Southern Contracting Co. has contract at \$11,648.10 for sewerage and filling in Redgate avenue.

Norfolk—Street-paving.—City has completed arrangements for improving Main street, and bids for the work will be received until June 22. L. W. Tazewell is chairman of street committee; W. T. Brooke, city engineer.

Norfolk—Land Improvement.—Chartered: Jefferson Development Corporation, with \$25,000 capital stock, by William J. Shepherd, James M. Wolford and Alpheus Weaver.

Norfolk—Oil Wells.—Tidewater Mineral & Oil Co., recently incorporated with \$150,000 capital stock, has leased 2400 acres of land and will arrange at once to drill for oil. Machinery has been purchased.

Orange—Brick Works and Building-material Factory.—H. C. Eddins, it is reported, will establish a pressed-brick and building-material plant.

Richmond—Shoe Company.—Capital Shoe & Supply Co. has been incorporated with \$5000 capital stock. John T. Taylor of Richmond is president, and R. T. Hill, treasurer.

Richmond—Stone Quarry, Cement Building Stone, etc.—W. T. Moulton is completing arrangements for quarrying stone, plant to be placed in operation about August 1. The installation of plant to make cement building stone from the fine crushed stone obtained from crusher plant is also being contemplated. Mr. Moulton desires to secure the services of an experienced quarry foreman.

Suffolk—Street-paving.—City has decided to pave 19,000 square yards of streets with vitrified brick, for which Southern Contracting Co., Norfolk, Va., is lowest bidder, and 16,527 square yards with bitulithic paving, for which Warren Bros. of Boston, Mass., were the only bidders. These firms will probably be awarded the contracts. Lee Shaffer is city engineer.

WEST VIRGINIA.

Alderson—Tannery.—Alderson Leather Co., recently organized with Wm. W. Hirschberger, president; John F. Johnson of Pickens, W. Va., vice-president; Ernest Wakefield, secretary-treasurer, and Charles D. Hirschberger, general manager, has purchased site on which to locate proposed tannery. Arrangements will be made at once for erection of bark sheds. Plant will cost approximately \$125,000. The tannery will consume 5000 cords of tanbark annually and tan 200 hides a day.

Barbour County—Coal Mines.—It is reported that Fred O. Blue, representing Judge Dayton and a company of Pennsylvania capitalists, has purchased from M. A. Joliff of Fairmont, W. Va., 840 acres of coal lands in Barbour county.

Barbour County—Coal Lands and Mines.—J. M. Guffey Company has been incorporated with an authorized capital stock of \$100,000 by J. M. Guffey, George D. Prentice, J. S. Millard, W. T. Johnson and L. R. Lewis, all of Pittsburg, Pa., to take over the properties of J. M. Guffey in Barbour, Marion, Preston, Taylor and Tucker counties, West Virginia.

Belington—Sewerage System and Street-paving.—Arrangements have been completed for sewerage system and street improvements, for which \$30,000 of bonds were previously reported voted. Bids for the work will be opened June 1; B. B. Rohrbough, mayor.

Bramwell—Coal Mines.—Chartered: Wagner Coal Co., with an authorized capital stock of \$10,000, by W. J. Peters, C. A. Peters, C. W. Peters and others.

Charleston—Water-power-Electrical Plant.—It is reported that J. Turner Morehead will erect plant for the development of the water-power of the Kanawha river near Charleston.

Charles Town—Woodworking Plant.—Jefferson Pin Co. has been incorporated with an authorized capital stock of \$5000 by E. B. Reed, Charles E. Baylor, J. Frank Turner, T. Jefferson Manning and others to manufacture pins, crossarms, etc., for telephone and telegraph lines.

Fairmont—Screen Factory.—Northington Roller Screen Co. has been incorporated with an authorized capital stock of \$15,000 by Thos. F. Robey, Raymond Abatischis, C. H. Waggener and associates.

Huntington—Railroad Construction.—Chartered: Davis-Reynolds Company, with an authorized capital stock of \$5000, by T. J. Davis, Sr., of Culloden, W. Va.; J. D. Reynolds, E. C. Garrison, John Shinberger of Richmond, Va., and associates.

Kanawha Falls—Aluminum Plant.—Wilson Aluminum Co., J. Thomas Morehead, president, states it is not contemplating enlarging plant this year, as mentioned recently.

Kingwood—Bridge Construction.—Caddell Lumber Co. will construct a bridge across Cheat river at old Fairfax ford for Preston county; cost \$15,000.

Marlinton—Street-paving and Sewerage.—City is considering the issuance of \$10,000 of bonds for street improvements and \$5000 for sewerage system. Address The Mayor.

Morgantown—Construction Company.—Weaver-Zevely Construction Co. has been incorporated with an authorized capital stock of \$50,000 by J. N. Weaver, H. J. Zevely, E. M. Zevely and others.

Paden City—Steel Works.—It is stated that the Carter Iron Co. has been organized to operate the plant of the Ohio Valley Steel & Foundry Co., mentioned last week as purchased by R. A. Carter, president Monongahela Iron & Steel Co., Pittsburg, Pa. It is proposed to erect 24 patent puddling furnaces for making sheet bars, etc., the company acting as its own engineer.

Romney—Publishing.—John J. Cornwell, J. F. Martin and associates have incorporated the Review Company with an authorized capital stock of \$10,000.

Tyler—Glass Plant.—It is reported that the Tyler Window Glass Co. will place continuous tanks in plants at Tyler and Sistersville, W. Va., and both factories will be placed in operation under one management.

Wheeling—Paving.—Ohio County Commissioners have let contract for work on the Wheeling and Fairmont pike to F. P. Jones Company at \$10.50 per 1000 delivered for paving brick and to R. B. McCullough at \$1.14 per square yard for paving work and furnishing other materials.

INDIAN TERRITORY.

Claremore—Water-works and Electric-light Plant.—Town is reported to issue bonds for constructing water-works and electric-light plant. Address The Mayor.

Madill—Water-works.—City will vote June 19 on the issuance of \$40,000 of bonds for the construction of proposed water-works; O'Neil Engineering Co., Dallas, Texas, consulting engineers; John L. Carter, mayor.

South McAlester—Oil-pipe Line.—The Kansas & Texas Company, organized in February, 1902, has filed with the Interior Department an application for privileges insuring the construction of its proposed pipe line, to extend from points in Indian Territory and the Osage Nation to Coffeyville, Kan., where a refinery with a capacity of 1000 barrels is located. It is proposed to complete the proposed line with stations and storage tanks, tank car lines and distributing stations for handling fuel and refined oils, making it a carrier not only for its owner, but also for other independent refining companies which may locate at its terminals. The company can be addressed at Coffeyville, Kan., care of Charles E. Martin, trustee.

Tulsa—Oil Wells.—Noble Oil Co. has been

incorporated with \$100,000 capital stock by Charles M. Hammett, William O. Strother and J. Wood Glass.

Weleetka—Cottonseed-oil Mill.—Weleetka Cotton Oil Co. has increased capital stock from \$60,000 to \$75,000.

OKLAHOMA TERRITORY.

Alva—Development Company.—Alva Development Co. has been incorporated with \$3000 capital stock by George D. Carter, H. E. Noble, J. P. Duncan, G. E. Nickel and others.

Cache—Lumber Company.—Incorporated: Block-Miller Lumber Co., with \$16,000 capital stock, by Thomas Fogelson, W. K. Miller of Cache and G. H. Block of Hennessey, O. T.

Cheyenne—Cotton Gin.—Chartered: Farmers' Union Gin Co., with \$6000 capital stock, by G. W. Hutton, John E. Leary, M. E. Bauman and others.

Coyle—Telephone System.—Chartered: Coyle Telephone Co., with \$5000 capital stock, by O. L. Jewitt, C. L. Minish and others.

Enid—Flour and Meal Mill.—Farmers' Mill & Elevator Co., recently reported incorporated, will operate flour and meal mill with a daily capacity of 150 barrels. A frame iron-clad building, 36x50 feet, will be erected.

Foss—Cotton Gin.—Chartered: Foss Gin Co., with \$20,000 capital stock, by S. M. Darnell, J. A. Brown and others.

Gotebo—Gas and Oil Wells, etc.—F. R. Wildman, Charles A. Huler and W. H. Kuder have incorporated the Gotebo Gas, Oil & Pressed Brick Co. with \$100,000 capital stock.

Guthrie—Steel Plant.—Henry Linn, it is reported, is interested in the establishment of a large steel plant in the Southwest.

Lawton—Land Improvement.—Pawhuska & Lawton Development Co. has been incorporated with \$24,000 capital stock by F. M. English, F. T. Blair, C. M. Myers and associates.

North Enid—Development Company.—Southwest Development Co. has been incorporated with \$20,000 capital stock by S. Ramsoner, H. M. Spaulding and associates.

Oklahoma City—Copper Mines.—American Consolidated Copper Co. has been incorporated with \$3,000,000 capital stock by W. H. Taylor, S. T. Bisbee, Ralph J. Rumer of Oklahoma City, W. J. Harlan of Bartlett, Texas, and associates.

Oklahoma City—Cottonseed-oil Mill.—H. W. Kanaga, E. A. Dill, F. A. Porter of Oklahoma City, J. S. LeClercq of Paris, Texas, and associates have incorporated the Oklahoma Cotton Oil Co. with \$75,000 capital stock.

Tyrone—Telephone System.—Incorporated: Tyrone Local & Long Distance Telephone Co., with \$5000 capital stock, by C. L. Clarke, A. J. Hughes and others.

Yukon—Telephone System.—A. C. Demming, J. H. Brass, O. D. Gardner and associates have incorporated the West Point Mutual Telephone Co. with \$2170 capital stock.

BURNED.

Auvergne, Ark.—John Lee's cotton gin; loss \$5000.

Baltimore, Md.—Machine shop of John W. & Daniel Davis at Lombard and 10th streets, Highlandtown; loss about \$4000.

Burkeville, Va.—Colored Seminary for Girls at Ingleside; loss \$80,000.

Flintstone, Md.—Anthracite Lumber Co.'s saw-mill; loss \$1000.

Forest Hill, La.—Hurricane Creek Lumber Co.'s saw-mill.

Harman, W. Va.—Kenney & Ruins' saw-mill.

Johnson City, Tenn.—Pardue & Saylor's store building; loss \$3500.

Mt. Carmel, Tenn.—W. S. Mays' saw-mill and warehouse; loss \$5000.

Mt. Vernon, Texas.—Green Hotel; loss \$10,000.

Perryman, Md.—Lee & Holloway's grist mill and storage-house; loss \$5000.

Seymour, Ky.—D. D. Wilson's residence; loss \$5000.

Valdosta, Ga.—Ousley & Co.'s mattress factory; loss \$1000.

Vienna, Va.—John W. Echols' residence; loss \$6000.

Westwood, Va.—J. C. Leber's saw-mill; loss \$2000.

Yazoo City, Miss.—C. A. Collins' livery stable; loss \$16,000.

Messrs. H. M. Byllesby & Co.

Messrs. H. M. Byllesby & Co., engineers, are announcing the removal of their general offices to the American Trust Building at Clark and Monroe streets, Chicago, Ill.

BUILDING NOTES.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Anderson, S. C.—Church.—St. John Methodist Church is reported to erect a \$25,000 edifice; R. S. Truesdale, pastor.

Annapolis, Md.—Gun Shed.—Bids will be received at Navy Department, Washington, D. C., until June 21 for building for gun shed at United States Naval Academy. Blank forms of proposal and specifications will be furnished and plans may be seen on application at United States Naval Academy, Annapolis, or at office of Ernest Flagg, architect, 35 Wall street, New York. A set of drawings may be obtained at architect's office by depositing \$5; Truman H. Newberry, assistant secretary.

Asheville, N. C.—Hotel.—R. S. Smith is preparing plans for an eight-story hotel of steel frame and reinforced concrete for Frank Loughran; to have 294 rooms and 150 baths.

Athens, Ga.—Office Building.—Contract will be let in about 60 days for office building previously reported to be erected by the Southern Mutual Insurance Co.; 60x135 feet; fireproof; steam heat; electric fixtures; hydraulic elevators; cost \$175,000; Haralson Bleckley, Atlanta, Ga., architect.

Atlanta, Ga.—Depot and Warehouse.—Ferro-Concrete Construction Co. of Cincinnati, Ohio, has contract for the erection of freight depot and warehouse for the Louisville & Nashville Railroad, previously mentioned; five stories, 50x325 feet; cost \$400,000.

Atlanta, Ga.—Synagogue.—Beth Israel congregation is having plans prepared for the erection of proposed \$25,000 synagogue. Address President of Congregation.

Augusta, Ga.—School Building.—T. O. Brown has contract for the erection of Fifth ward school building, previously mentioned; L. F. Goodrich, architect.

Augusta, Ga.—Buildings.—Jacob Phinizy wants plans and specifications for a frame metal-roof tenement row of six houses on lot 130x132 feet; also plans and specifications for two frame metal-roof three-story apartment houses on lot 130x132 feet; cost in both cases not to exceed \$20,000. Will give \$500 cash for plans and specifications accepted. Usual rights reserved.

Austin, Texas—Store Building.—Scarborough & Hicks have let contract to Fischer & Lambie for the erection of addition and making other improvements to store building.

Baltimore, Md.—Florists' Exchange.—The Florists' Exchange, 505 North Eutaw street, has awarded contract to Wm. H. Porter & Son, 535 East Forrest street, for the construction of exchange building at southwest corner of St. Paul and Franklin streets; two stories, 33x87 feet; brick with limestone and terra-cotta trimmings; tin roof; galvanized-iron cornice; steel beams; electric wiring and fixtures; sanitary plumbing; steam-heating system; elevator; cost about \$15,000; J. Edward Laferty, architect, 11 East Pleasant street.

Baltimore, Md.—Dwellings.—Joseph L. White, builder, 115 South Broadway, will erect 24 two-story brick dwellings on Hare, Canton and Potomac streets, to cost about \$24,000; F. E. Beall, architect, 213 St. Paul street.

Baltimore, Md.—Office Building.—The Collington Square Savings and Loan Association, Dr. Henry F. R. Snyder, 421 North Wolfe street, will erect office building at Preston street and Collington avenue; two stories; brick with stone trimmings; Charles M. Anderson, architect, 324 North Charles street.

Baltimore, Md.—Dwelling.—John M. Adams of Carroll, Adams & Co., 22 South Howard street, has awarded contract to Arthur F. West, 217 South Gilmor street, for the construction of 2½-story frame and stucco dwelling to be erected at Roland Park. Electric wiring and fixtures, sanitary plumbing, heating system will be installed; cost about \$15,000; Wyatt & Nolting, architects, Builders' Exchange Building, 2 East Lexington street.

Baltimore, Md.—Warehouse.—C. Read & Co., grocers' specialties, 20 North Greene street, has commissioned Freund & Crawford, architects, 20 Builders' Exchange Building, 2 East Lexington street, to prepare plans and specifications for warehouse to be erected at 20 North Greene street; four stories, 38x75 feet; brick with stone trimmings; steel beams; cast-iron columns; sing roof; electric wiring and fixtures; sanitary plumbing; steam-heating system; elevator. Henry S. Rippel, 7 Clay street; J. H. Walsh & Bro., 321 Clay street, and Thomas B. Stanfield &

Son, 109 Clay street, are estimating on construction.

Baltimore, Md.—Office Building and Warehouse.—The Chesapeake Steamship Co., Light and Lee streets, has awarded contracts to John Hiltz & Son, 3 Clay street, for the construction of office building and warehouse; office building four stories, 48.4x60 feet; warehouse four stories, 21x45 feet; brick with stone trimmings; steel beams; cast-iron columns; concrete fireproofing; slag roof; copper cornice; metal frames and sashes; electric wiring and fixtures, plumbing, heating system and elevator not included in contract; Charles E. Cassell & Son, architects, Law Building, Courtland near Lexington street.

Baltimore, Md.—Apartment-house.—James P. Doyle, 604 Patterson avenue, has awarded contract to J. J. Walsh & Son, 1525 Maryland avenue, for the construction of apartment-house at 606 Patterson avenue; three stories, 22x33 feet; brick with stone trimmings; steel beams; tin roof; electric wiring and fixtures; sanitary plumbing; heating system; cost about \$10,000; Jacob F. Gerwig, architect, Hoffman Building, 11 East Lexington street.

Baltimore, Md.—Store Building.—Hopper, McGaw & Co., 309 North Charles street, has awarded contract to Henry Smith & Sons Company, 116 South Regester street, for the construction of store building to be erected at southwest corner Charles and Mulberry streets; four stories, 37x120 feet; brick with granite base and marble trimmings; reinforced concrete construction; fireproof vaults; interior marble; electric wiring and fixtures; sanitary plumbing; steam-heating system; electric elevators; Alfred H. Taylor, architect, Hanover Building, 110 West Fayette street.

Baltimore, Md.—Church.—The Second Baptist Church, Walter Rhodes, pastor, 1803 Wallbrook avenue, has awarded contract to A. Knell, Jr., 213 St. Paul street, for the construction of church building at Orleans and Luzerne streets; one story and basement, 62x66 feet; brick with stone trimmings; steel beams; cast-iron columns; slate roof; electric wiring and fixtures; sanitary plumbing; heating system; cost about \$11,000; Edward H. Glidden, architect, Wilson Building, 301 North Charles street.

Baltimore, Md.—Business Building.—Israel Berkenfeld, 201 East Baltimore street, has commissioned Louis Levi, architect, American Building, Baltimore and South streets, to prepare plans and specifications for business building to be erected at southwest corner Baltimore and High streets; four stories, 20.6x67 feet; brick with terra-cotta trimmings; electric wiring and fixtures; sanitary plumbing; heating system.

Baltimore, Md.—Car Barn.—The United Railways & Electric Co., Wm. A. House, general manager, Continental Building, Baltimore and Calvert streets, has commissioned Simonson & Pletsch, architects, American Building, Baltimore and South streets, to prepare plans and specifications for car barn to be erected on York road to cost about \$100,000.

Baltimore, Md.—Store Building.—The Methodist Protestant Book Concern, 316 North Charles street, has awarded contract to Chas. W. Simpson & Co., 415 East Lexington street, for remodeling store building at 316 North Charles street.

Baltimore, Md.—Dwellings.—John Hubner, Maryland Telephone Building, Courtland near Lexington street, has awarded contract to William Collett, 1645 West Lanvale street, for the construction of 16 two-story brick dwellings on McHenry near Katharine street to cost about \$18,000; Jacob F. Gerwig, architect, Hoffman Building, 11 East Lexington street.

Baltimore, Md.—School.—M. C. Davis, 5 Hopkins Place, was the lowest bidder at his bid of \$34,300 for the construction of school at Garrison and Main avenues; two stories, 83.8x63.2 feet; brick with stone trimmings; steel beams; cast-iron columns; tin roof; sanitary plumbing; steam-heating system; Simonson & Pletsch, architects, American Building, Baltimore and South streets.

Baltimore, Md.—Asylum Buildings.—The following lowest bids were submitted to the Board of Awards for the construction of buildings at Bayview Asylum: Frederick Decker & Son, 1209 East Biddle street, administration building, three stories, 35x130 feet, brick with stone trimmings, steel beams, cast-iron columns, tin roof, electric wiring and fixtures, sanitary plumbing, steam-heating system, bid \$27,500, and sterilizing plant, one story, frame construction, 15.6x30 feet, bid \$951; 2½-story frame farmer's house, Frederick Wright & Co., National Marine Bank Building, Gay and Water streets, bid \$3000; hay barracks, M. C. Davis, 5 Hopkins Place, bid \$786.

Baltimore, Md.—Stable.—The municipal Board of Awards, City Hall, has awarded contract to M. C. Davis, 5 Hopkins Place, for the construction of police patrol stable at 27 South Frederick street at his bid of \$7300; two stories, 32x89 feet; brick with stone trimmings; steel beams and columns; slag roof; electric wiring and fixtures.

Bluefield, W. Va.—Business Block.—Bluefield Furniture Co., D. W. Hancock, general manager, will erect four or five-story building, 50x258 feet; brick and stone, equipped with hot-water-heating plant; electric fixtures; two freight and one passenger elevator; cost \$32,000. Architect has not been engaged.

Bluefield, W. Va.—Hotel.—The erection of a 150-room hotel is being considered; Dr. J. E. Martin, chairman of building committee.

Blytheville, Ark.—Jail Building.—Southern Structural Steel Co. of San Antonio, Texas, has contract at \$7500 for erection of proposed two-story jail building.

Boynnton, I. T.—School Building.—Town will vote June 12 on a \$10,000 bond issue for erecting school building, Address Town Clerk.

Bradentown, Fla.—Hotel.—Henry L. Coe will erect a hotel of artificial stone to contain 75 or 85 rooms and cost between \$30,000 and \$35,000.

Carnesville, Ga.—Courthouse.—Franklin county will vote June 9 on a \$50,000 bond issue for erection of courthouse. Address County Judge.

Cedartown, Ga.—Depot.—Central of Georgia Railway will erect passenger and freight depot in connection with improvements mentioned under Cedartown in another column. H. M. Steele, Savannah, Ga., is chief engineer.

Charleston, S. C.—Depot.—Reports state that the Chesapeake & Ohio Railway will erect an addition 225 feet long to freight depot, having a platform 25 feet wide. H. Pierce, Richmond, Va., is engineer construction.

Charleston, Tenn.—Bank Building.—Hwassee Bank, recently organized with B. B. Edwards, president, will erect building.

Charlottesville, Va.—Buildings.—University of Virginia is arranging for erection of \$10,000 addition to hospital, for which plans are being prepared by Paul J. Pelz, Washington, D. C.; also erection of \$20,000 dining-hall and a \$15,000 residence for President Alderman, for both of which plans are being prepared by McKim, Meade & White of New York.

Chatham, Va.—College Building.—Agnor & Son, Lynchburg, Va., have contract at \$34,265 for the erection of building at the Chatham Episcopal Institute, for which E. G. Frye, Lynchburg, Va., was previously mentioned as preparing plans.

Chattanooga, Tenn.—Building.—Garrity & Hahn have contract to erect three additional stories to building for J. W. Kelly & Co., mentioned last week; Bearden & Foreman, architects; cost \$25,000.*

Cisco, Texas.—Dwelling.—Bids are being received by C. H. Fee for the erection of residence; plans on file at C. H. Fee's office; also at Western National Bank, Fort Worth, Texas.

Cisco, Texas.—Masonic Temple.—Bids are being received for the erection of Masonic Temple in accordance with plans on file with A. Owens, chairman of building committee, Cisco, and with the Western National Bank, Fort Worth, Texas.

Cordele, Ga.—Courthouse and Jail Building.—Crisp county will vote August 22 on the issuance of \$80,000 of bonds for the erection of courthouse and jail building previously mentioned. S. W. Coney is ordinary.

Covington, La.—Library Building.—De Buys, Levy & Co. of New Orleans, La., have completed plans for the James M. Thompson Memorial Library building to be erected by the M. C. B. Miss Emma V. Whelpley, president; building of cream-colored brick and terra-cotta; cost \$5000. Bids for construction will be asked at once.

Dallas, Texas.—Building.—Mond & Skielvig, 508 North Texas Building, are preparing plans and will receive bids until June 10 for two-story building 50x76 feet; frame, sandstone and press brick veneered, hard plaster, gas and electric fixtures; modern plumbing; dumbwaiter; cost \$15,000.

Dallas, Texas.—Dwelling.—Plans have been completed for a two-story residence to be erected by St. Matthew's Episcopal congregation; frame; concrete flooring; hard plaster; gas and electric fixtures; modern plumbing; cost \$5000.

Dallas, Texas.—Dwelling.—M. H. Wolfe has had plans prepared by Mond & Skielvig, 508 North Texas Building, for a two-story residence 51x54 feet; frame; concrete flooring; gas and electric fixtures; modern plumbing; cost \$5500.

Dallas, Texas.—Building.—Architect Bulger prepared the plans reported recently for the fireproof building to be erected by the Baptist Memorial Sanitarium; R. C. Buckner, secretary. Electric fixtures will be installed.

Dallas, Texas.—Clubhouse.—Bids will be received until June 9 for erection of three-story building for Columbia Club. Plans and specifications can be seen at office of Lang & Wittichell, architects, 622 Wilson Building. Certified check for \$500 must accompany each bid. Usual rights reserved.

Dallas, Texas.—Store and Warehouse.—S. G. Davis Hat Co. will receive bids until June 7 for erection of a four-story store and warehouse. Plans and specifications can be seen at office of Lang & Wittichell, architects, 622 Wilson Building. Certified check for \$300 must accompany each bid. Usual rights reserved.

Douglas, Ga.—Church.—Bids will be opened June 22 for erection of brick edifice for Methodist congregation, previously mentioned. Address J. J. Rogers, secretary, Douglas, or Geo. C. Thompson, architect, 1230 Candler Building, Atlanta, Ga.

Elizabeth City, N. C.—Church.—Walter Price has been awarded contract for erection of proposed addition to First Baptist Church.

Ensley, Ala.—Store and Office Building.—F. M. Slye has contract to erect store and office building for F. J. Lange; two stories, 25x80 feet; pressed brick and plate-glass front; cost \$5000.

Fort Worth, Texas.—Bank Building.—Buchanan & Glider have contract to erect six-story fireproof building for the Western National Bank after plans by Sanguinetti & Staats, Hoxie Building, Fort Worth, Texas.

Fort Worth, Texas.—Business Buildings.—J. F. Moore has secured permits for erection of two brick business buildings to cost \$20,000 and \$30,000, respectively.

Fort Worth, Texas.—Dwelling.—August Males will erect a \$9000 residence.

Fort Worth, Texas.—Warehouse.—Smith & Schenk, Ateller Building, have completed plans and are receiving bids on three-story warehouse to be erected by Fakes Furniture Co.; bids taken on both concrete and brick.

Fort Worth, Texas.—Business Building.—Dr. R. J. Pollock will erect a two-story business building.

Fort Worth, Texas.—Business Building.—Sanguinetti & Staats are preparing plans for a business building to be erected by Winfield Scott.

Fort Worth, Texas.—Church.—A. J. Anderson, chairman building committee, will receive bids until June 11 for erection of edifice for First Methodist Church, South; Alonzo Monk, pastor; plans and specifications on file with S. Wemyss Smith and L. G. Schenk, architects, and Algonite Cement Co., St. Louis, Mo. Materials to be used in construction will consist of iron and steel, ornamental iron, grill work, ornamental copper work, plastic ornament, wood-pulp plaster, hard plaster, steel ceiling, marble work, rubber tile, sheet prisms, terra-cotta or Algonite stone, Bedford stone, St. Louis press brick, fan system warm-air heat, multiplex plates, concrete and cement work, electric standards and fixtures. Art glass and organ will be let separately.

Fort Worth, Texas.—Jail.—A concrete jail building, 20x60 feet, will be erected in North Fort Worth. Address City Secretary, North Fort Worth.

Gainesboro, Tenn.—School Building.—T. D. Wooten of Carthage, Tenn., has contract at \$5000 for the erection of proposed high-school building.

Girard, Ala.—School Building.—School Board is considering issuing \$10,000 of bonds for the erection of school building.

Granger, Texas.—School Building.—W. A. Winn, secretary school board, is receiving bids for the erection of two-story brick school building. Plans on file at office of secretary; also at office of C. H. Page, Jr., architect, Austin, Texas.

Greensboro, N. C.—College Building.—Greensboro Female College, Mrs. Lucy H. Robertson, president, will erect an additional building to cost \$5000.

Griffin, Ga.—Office Building.—Griffin Concrete Stone & Brick Co. has contract to erect office building for W. J. Kincaid, for which Bruce, Everett & Hayes, Atlanta, Ga., prepared the plans; 70x35 feet; concrete and stone; electric fixtures; cost \$9000.

Gulfport, Miss.—Hospital.—J. E. Green has contract to erect hospital at the Beauvoir Home; Dr. W. T. Price, superintendent.

Hammond, La.—Bank Building.—Mackenzie & Goldstein of New Orleans, La., have completed plans for two-story building previously reported to be erected by Bank of Ham-

mond. Ben S. Gallup of Hammond is associate architect.

High Point, N. C.—Church.—South Main Street M. E. Church is having plans prepared for a brick edifice, 46x80 feet, to cost \$8000.

Houston, Texas.—Church.—Arrangements are being made for erection of proposed edifice for Shearn Methodist Church. M. E. Andrews is chairman of building committee.

Houston, Texas.—Store and Flat Building.—Bids will be received until June 9 for erection of three-story brick store and flat building in accordance with plans and specifications on file in office of Sanguinetti, Staats & Seutter, architects, 801 First National Bank Building.

Houston, Texas.—Hotel.—The hotel previously reported to be erected by W. L. Macatee will be four or five stories, 80x100 feet; press-brick front; elevator; steam heat; electric lights, etc.; cost between \$40,000 and \$50,000; Cooke & Co., Opera-House Building, architects.

Huntsville, Texas.—School Building.—Board of trustees, W. W. Adickes, president, will receive bids until June 7 for the erection of brick school building. Certified check, made payable to president of board, must accompany each bid. Plans can be seen or applied for at office of C. H. Page, Jr., architect, Austin and Houston, Texas. Usual rights reserved.

Independence, Mo.—Courthouse Improvements.—Christian Yetter of Independence is lowest bidder at \$25,668 for improvements to Jackson county courthouse.

Jamestown, Va.—Church.—William P. Marshall of Norfolk, Va., has been engaged to superintend the construction of memorial building on site of Jamestown Church, for which Edmund M. Wheelwright of Boston, Mass., was recently mentioned as preparing plans. Building will be 56x27 feet, of Gothic type.

Jonesboro, Ark.—School Building.—Architect has not been engaged to prepare plans for school building mentioned last week to be erected; building to be of ordinary construction, equipped with steam heat and cost \$20,000. Address Secretary School Board.

Joplin, Mo.—Hotel.—Thomas Connor has let contract for erection of hotel, previously reported; nine stories; cost \$350,000.

Joplin, Mo.—School Building.—A. C. Michaelis is preparing plans for school building, for which \$45,000 in bonds was recently reported voted; building to be of brick and stone; steam heat; cost \$45,000.

Kansas City, Mo.—Church.—Rudolf Markgraf has completed plans for proposed edifice for Prospect Avenue Congregational Church. Contract for construction will shortly be let; 58x107 feet; main auditorium to have a seating capacity of 450 and balcony 100; cost \$30,000.

Lagrange, Ga.—Cotton Warehouse.—Security Warehouse Co. is being organized with \$20,000 capital stock by F. E. Callahan and others to erect cotton warehouse; two stories; standard fireproof construction; 200x200 feet; automatic sprinkler system.

Lagrange, Ga.—Warehouse.—George B. Hinman, Atlanta, Ga., has contract to erect warehouse for the Troup Company, previously reported; brick; mill construction; three compartments; electric lights; capacity 10,000 bales of cotton; cost \$35,000. A. F. Walker, Atlanta, Ga., prepared the plans.

Lake Charles, La.—Building.—Maginnis & Reimers have contract to erect building for Mrs. E. J. Chavanne and Charles E. Chavanne, previously mentioned; two stories, 74x100 feet; electric fixtures; cost \$20,000.

Little Rock, Ark.—School Building.—Chairman of committee on new buildings will receive bids until June 5 for erection of addition to Fred Kramer school building. Plans and specifications may be seen at office of school board, also at office of Gibb & Sanders, architects. Certified check for \$300 must accompany each bid. Usual rights reserved; James H. Lenow, president special school district.

Little Rock, Ark.—Church.—H. J. Harker has completed plans for edifice 60x60 feet for Immanuel Baptist congregation. A heating and ventilating system, by which hot and cold air will be forced into the rooms by means of electric fans, will be installed.

Live Oak, Fla.—Church.—Plans and specifications have been completed and bids are being received for erection of proposed \$12,000 brick and stone edifice for Presbyterian church. Address Chairman Building Committee.

Little Rock, Ark.—Building.—Stanton & Collamore have contract at \$15,000 for erection of proposed Lafferty Building.

Louisville, Ky.—Coliseum.—Coliseum Amusement Co. has secured permit for building previously mentioned; 120x240 feet; gray brick, pressed steel and glass; seating ca-

capacity 5000; cost \$56,000. Brinton B. Davis prepared the plans.

Lynchburg, Va.—School Building.—Campbell County School Commissioners have secured site on which to erect two-story brick school building to cost \$4000.

Lynchburg, Va.—Building.—Kinnier, Montgomery & Co. have secured permit for erection of proposed \$18,000 brick building with metal roof.

Lynchburg, Va.—Business Building.—Beasley, Couch & Co. are having plans prepared for erection of a five-story concrete building.

Macon, Ga.—Cotton Warehouse.—B. B. Ford and associates have purchased site on which to erect standard cotton warehouse; capacity 50,000 to 60,000 bales.

Macon, Ga.—Building.—J. F. Griffin has contract to erect three-story building, 40x50 feet, for Dannenberg Company; plans by Frank R. Hupp; steam heat; electric lights; cost \$30,000.

Manchester, Va.—Dwellings.—L. E. Ullman is having plans prepared for erection of two residences to cost about \$8000; two stories, brick with stone trimmings.

Marletta, Ga.—School Building.—City will vote June 16 on a \$10,000 bond issue for erecting school building. E. P. Dobbs is mayor.

Marshall, Texas.—City Hall.—City has purchased site 80x120 feet on which to erect proposed city hall; Dan Heyer, mayor.

Martinsburg, W. Va.—Dwelling.—George W. Peck and W. A. Wilkenson, Clarksburg, W. Va., have contract to erect residence for W. H. Crawford, for which Holmboe & Lafferty of Clarksburg, W. Va., were previously reported as preparing plans; ordinary construction; steam heat; electric and gas fixtures; cost \$22,000. Contracts for plumbing, heating and electric wiring will be let in 10 days. Holmboe & Lafferty also have offices at Bluefield, W. Va.

McKinney, Texas.—Building.—W. P. and Mrs. Lizzie Suttle will erect two-story building 24x30 feet, of fireproof construction, replacing structure recently burned; electric lights; hand power elevator.

Memphis, Texas.—Business Building.—Spencer & Patton have contract to erect two-story brick and stone business building for C. M. Montgomery.

Memphis, Tenn.—Building.—F. B. Young has contract to erect four-story building for the Wood estate, for which Chighizola, Harker & Cairns were previously mentioned as preparing plans; cost \$30,000.

Memphis, Tenn.—Hotel.—F. B. Young has contract to erect addition to the Fransola Hotel, previously mentioned; cost \$20,000; Chighizola, Harker & Cairns, architects.

Memphis, Tenn.—Synagogue.—S. Dlugach, chairman trustees for the Anshe Sfard congregation, 519 Mosby street, will receive bids until June 10 for the erection of a hollow-stone building. For plans, specifications and all details apply at 519 Mosby street.

Meridian, Miss.—School Building.—City has voted affirmatively the proposed \$35,000 bond issue for school purposes. Address The Mayor.

Mineral Wells, Texas.—Skating Rink, etc.—Chartered: Mineral Wells Amusement Co., with \$15,000 capital stock, to erect a brick building for skating rink, bowling alley, etc. O. R. Menefee is president; George Stillman, vice-president; A. W. Samuels, treasurer, and C. C. Hays, general manager, all of Fort Worth, Texas.

Mineral Wells, Texas.—Business Building.—Harry Waldron has had plans prepared by Taylor & Mounts for a two-story business building 50x90 feet. Bids for the erection are being received.

Montgomery, Ala.—Depot.—It is reported that the Atlantic Coast Line is arranging for the erection of freight depot, two stories, 500 feet long. E. B. Pleasants, Wilmington, N. C., is chief engineer.

Monticello, Ga.—Courthouse.—Jasper County Commissioners will receive bids until July 1 at office of A. S. Florence, ordinary, Monticello, for furnishing materials and labor and erecting courthouse in accordance with plans and specifications on file at office of ordinary and at office of Lockwood Bros., architects, Columbus, Ga.; building to be two stories, of brick, stone, terra-cotta, concrete, 76x96 feet, with slate roof; certified check for \$500, payable to E. H. Jordan, chairman Board of County Commissioners, must accompany each bid; bids to be made out on blank furnished by architects. Usual rights reserved.

New Orleans, La.—Building.—George B. Rogers has completed plans for proposed eight-story building of reinforced concrete to be erected by G. Van Antwerp at a cost of \$150,000.

New Orleans, La.—School Building.—Plans by Andry & Bendernagel have been adopted for school building to be erected by the New

Oriens Terminal Co. to replace McDonough No. 18.

New Orleans, La.—Church.—Morris B. De Pass is preparing plans for a \$10,000 edifice to be erected by the Second Methodist Episcopal Church.

Newport News, Va.—Warehouses.—Bids will be received until June 4 at the store of H. B. Walker, 23d street, for erection of two warehouses. Plans and specifications can be had by applying to C. T. Holtzclaw, architect, Merchants' Bank Building, Hampton, Va.

Norfolk, Va.—Dwelling.—Dear & Totty have contract to erect residence for W. W. Starke to cost \$5000.

Norfolk, Va.—Apartment house.—C. W. Tyree has contract to erect apartment house ("The Virginia") for Charles R. Robertson; plans by John Keenan Peebles; four stories, of brick with stone trimmings; steam heat; electric lights, etc.

Norfolk, Va.—School Buildings.—Plans by John Keenan Peebles have been selected for 10-room school building to be erected on Chapel street, and those by Arnold Eberhardt for 12-room school building to be erected on Omohundro lot, for which \$55,000 was previously reported available.

Nowata, I. T.—Bank Building.—Nowata National Bank, recently organized with John A. Waddock, president, will erect \$25,000 building.

Oklahoma City, O. T.—Building.—Gross Construction Co. has contract to erect three-story building 50x125 feet for B. F. Ziegler, previously reported.

Opelika, Ala.—Church.—Site has been secured for the erection of Methodist church, and plans, specifications, etc., will be received by A. E. Burnette, secretary of board.

Osceola, Ark.—School Building.—City has voted the proposed bond issue for erection of school building. Address The Mayor.

Palo Pinto, Texas.—Courthouse and Jail.—Mike Solon has contract for building two-story annex to courthouse at a cost of \$5000 and making repairs to cost \$1200 to jail building for Palo Pinto county.

Pensacola, Fla.—Church.—F. R. Badgely of Cleveland, Ohio, has been commissioned to prepare plans and specifications for edifice previously reported for Palafox Methodist Church, 90x120 feet; seating capacity 1500; cost \$50,000.

Pensacola, Fla.—City Hall.—Board of Bond Trustees has rejected all bids for the erection of city hall as being in excess of amount appropriated for this purpose. It is stated that \$55,000 is available.

Pine Bluff, Ark.—Warehouse.—J. W. Dutton has contract to erect warehouse for C. M. Ferguson, 30x50 feet; brick; cost \$7000.

Pocahontas, W. Va.—Building.—Bids are being received on two-story building 25x30 feet of ordinary construction to be erected by C. A. Howard after plans by Holmboe & Lafferty, Bluefield, W. Va.; cost \$7000. Gas and electric fixtures will be installed. Holmboe & Lafferty also have offices at Clarksburg, W. Va.

Powder Springs, Ga.—Warehouse.—Farmers' Warehouse Co. has been incorporated with \$2000 capital stock by W. B. Sasser, J. P. Baker, L. T. Carter and others.

Prentiss, Miss.—Courthouse and Jail.—Board of Supervisors of Jefferson Davis county will hold a meeting June 4 to advertise for plans for a courthouse and jail to cost not less than \$50,000. As soon as plans and specifications are adopted bids for construction will be asked.

Richmond, Va.—Hotel.—Wirt A. Chesterman has contract to erect addition to hotel for E. H. Gilbert; cost \$20,000.

Roanoke, Va.—School Building.—B. Rust, superintendent of schools, will receive bids until June 4 for the construction of a 14-room brick school building according to plans and specifications on file at the superintendent's office. Certified check for \$200 must accompany each bid. Usual rights reserved.

Royce City, Texas.—School Building.—City has voted the proposed \$13,000 bond issue for the erection of school building. Address The Mayor.

San Antonio, Texas.—Office Building.—Isaac & Abraham Lang will erect five-story office building, replacing structure recently burned.

San Antonio, Texas.—Sanitarium.—German Evangelical Synod of North America will erect a \$10,000 sanitarium. Rev. J. L. Haack can be addressed.

Savannah, Ga.—Association Building.—Plans by Wallin & Young have been adopted for proposed Y. M. C. A. building; four stories, of brick with limestone trimmings.

Sewell's Point, Va.—Building.—Plans by Breese & Mitchell, Norfolk, Va., have been adopted for the Virginia State Building to be erected on the exposition grounds (previously mentioned); two stories, 116x50 feet; ordinary construction; electric and gas fixtures; cost \$25,000.

Somerset, Ky.—Library Building.—Billiter & Hood have contract to erect proposed \$10,000 Carnegie Library.

Statesville, N. C.—Church.—Wheeler, Runge & Dickey, Charlotte, N. C., have completed plans for edifice to be erected for First Methodist Church, South, 100x120 feet; ordinary construction; pressed brick; electric fixtures; cost \$25,000.

Staunton, Va.—School Building.—M. B. Stoddard will probably be awarded contract for erection of proposed three-story school building to cost \$30,000.

St. Denis, Md.—Church.—McLaughlin Bros., James F. Farley, Gladfelter & Chambers, all of Baltimore, Md., and Kelbaugh & Beal of St. Denis, Md., are estimating on the construction of edifice for St. John's Protestant Episcopal Church, for which Elliott & Emmart, 1101 Union Trust Building, Baltimore, Md., were previously reported as preparing plans.

Stigler, I. T.—School Building.—C. H. Sudhoefer, Muskogee, I. T., has prepared plans and will receive bids until June 1 for a two-story school building 60x80 feet; frame, stone and concrete blocks, iron, steel and wire work, concrete flooring, tiling, hard plaster, etc.; cost \$14,000.

St. Louis, Mo.—Dwelling.—J. B. Legg, Missouri Trust Building, is preparing plans for residence, mentioned last week, for Dr. Pinckney French; three stories, 60x62 feet; brick and terra-cotta; hardwood finish; hot-water direct and indirect radiation heating plant; electric and gas fixtures; cost \$65,000.

St. Louis, Mo.—Church.—Plans by Mauran, Russell & Garden have been adopted for proposed edifice for Second Baptist Church; main auditorium to be 130x80 feet; seating capacity 1200; chapel connected with main building by a colonnade to have seating capacity of 600; cost \$190,000.

St. Louis, Mo.—Apartment-house.—The apartment-house previously reported to be erected by the Revere Realty Co., T. B. Monroe, manager, will be 200x100 feet; fireproof construction; low-pressure steam-heating plant; combination lighting fixtures; combination passenger and freight elevators; cost \$50,000; W. H. Andrews, Boston, Mass., architect.

St. Louis, Mo.—Hall Building.—Barnett, Haynes & Barnett, Frisco Building, are preparing plans for a three and two-story hall building, 72x130 feet, for St. Leo's Church, J. T. Coffey, pastor; brick and stone; hard plaster; electric lights; cost \$45,000.

St. Louis, Mo.—Warehouse.—Barnett, Haynes & Barnett have completed plans for the erection of proposed five-story warehouse for Martin Shaughnessy; cost \$120,000.

St. Louis, Mo.—Flat Buildings.—Albert J. Francis has purchased site on which to erect three 11-room flat buildings.

St. Louis, Mo.—Dwelling.—William H. Redemeyer has purchased site on which to erect \$12,000 residence.

St. Louis, Mo.—Dwellings.—Guy C. Mariner has purchased site on which to erect two residences.

Texarkana, Texas.—Telephone Exchange.—Southwestern Telegraph & Telephone Co. is arranging for the erection of three-story fireproof exchange building to cost \$50,000. Address Superintendent at Dallas, Texas.

Waco, Texas.—Parish-house.—Vestry of St. Paul's parish will receive bids until June 7 for erection of parish-house either of brick or cement block. Certified check for 2½ per cent. of amount of bid must accompany bid. Plans and specifications can be seen at office of W. C. Dodson, architect, Waco, Texas. Usual rights reserved; E. R. Bolton, secretary building committee.

Warwood, W. Va.—Church.—George H. Dieringer, 1428 Market street, Wheeling, W. Va., has prepared plans and will receive bids for a \$20,000 edifice of stone and cement blocks to be erected by the Presbyterian congregation.

Washington, D. C.—Hotel.—R. T. Warwick, 712 19th street N. W.; Christian Heurich, 26th and D streets N. W.; Harry Moses, 11th and F streets N. W., and others have purchased lot at northeast corner 14th street and Pennsylvania avenue N. W. and will erect hotel on the site; 10 stories, 25x150 feet; brick with stone trimmings; steel frame fireproof construction; electric wiring and fixtures; sanitary plumbing; steam-heating system; electric elevators; cost about \$400,000.

Washington, D. C.—Office Building.—Westcott & Story, 816 17th street N. W., representing George H. Higbee, Burlington, Iowa, and others, has purchased lot at northeast corner 14th and F streets on which office building will be erected; nine stories, 29x85 feet; brick

with terra-cotta trimmings; steel-frame fireproof construction; interior marble; ornamental iron and bronze work; electric wiring and fixtures; sanitary plumbing; steam-heating system; electric elevators; cost about \$200,000; Henry L. A. Jekel, architect, Boston, Mass.

Washington, D. C.—Dwellings.—Miss Annie C. Cunningham, 1000 C street N. E., has awarded contract to Wm. A. Vaughn, 1513 Vermont avenue, for the construction of five two-story brick dwellings at 332-340 10th street N. E. to cost about \$16,000; Merrill T. Vaughn, architect, 1540 7th street N. W.

Washington, D. C.—Stable.—Peter Chaconas has awarded contract to J. W. Thomas, 1747 F street N. W., for the construction of two-story brick stable, 25x86 feet, in rear of 234 2d street N. W. to cost about \$5000.

Washington, D. C.—Apartment-house.—Thomas H. Pickford, 1410 G street N. W., will erect apartment-house at 304 14th street N. W.; three stories, 66x124 feet; brick with limestone trimmings; slag roof; steel beams; cast-iron columns; sanitary plumbing; steam-heating system; cost about \$30,000; W. J. Simmons, architect.

Washington, D. C.—Dwelling.—James R. Ellerson, 603 14th street N. W., has awarded contract to James Robbins, 1314 Vermont avenue, for the construction of dwelling at 2118 R street N. W.; three stories, 25x37 feet; brick with stone trimmings; tin roof; electric wiring and fixtures; sanitary plumbing; hot-water-heating system; cost about \$10,000.

Washington, D. C.—Store Buildings.—B. H. Warner, 916 F street N. W., will erect two-story store building at 811 H street N. W. and make alterations and additions to store buildings at 891 and 803 9th street N. W.; Wm. J. Palmer, architect, 523 9th street.

Washington, D. C.—Store Building.—William Corcoran III, 736 15th street N. W., has awarded contract to John S. Larcombe, 808 17th street N. W., for general alterations and remodeling store building at 1502 H street N. W. Electric wiring and fixtures will be installed.

Washington, D. C.—Dwelling.—Miss Martha Codman, 571 Fifth avenue, New York, has awarded contract to John F. De Bann for the construction of dwelling at 2145 Decatur Place; four stories, 87.5x71.3 feet; brick with limestone trimmings; slag roof; steel beams; cast-iron columns; electric wiring and fixtures; sanitary plumbing; steam-heating system; elevator; cost about \$30,000.

Washington, D. C.—Apartment-house.—Franklin T. Sanner, 18th street and Columbia road, has awarded contract to John Brennan, 946 Florida avenue N. W., for the construction of apartment-house at 1706 U street N. W.; three stories, 37x32 feet; brick with stone trimmings; steel beams; cast-iron columns; tin roof; steam-heating system; cost about \$14,000; B. Stanley Simmons, architect, 531 F street N. W.

Washington, D. C.—Dwellings.—Walter F. Collins, 614 G street S. E., has awarded contract to R. C. Hess, 17 Tennessee avenue N. E., for the construction of three dwellings at northwest corner 11th and G streets S. E.; two stories; brick with stone trimmings; tin roof; hot-water-heating systems; electric wiring and fixtures; sanitary plumbing; cost about \$17,000; C. E. Webb, architect, Warder Building, 523 9th street N. W.

Washington, D. C.—Office Building.—Burgess & Parsons, 627 F street N. W., were the lowest bidders for the construction of office building at 1304-1306 G street N. W. for Jordan & Bloomer, 1314 G street N. W.; three stories, 28x32 feet; brick with stone trimmings; steel beams; tin roof; electric wiring and fixtures; sanitary plumbing; steam-heating system; cost about \$15,000; Hunter & Bell, architects, 1610 F street N. W.

Washington, D. C.—Dwelling.—John Enders, 439 L street S. W., will erect dwelling at 409 Massachusetts avenue N. W.; three stories, 15x55 feet; brick with stone trimmings; tin roof; galvanized-iron cornices; sanitary plumbing; steam-heating system. Peter Feralinger, 1 N street N. W.; Wm. Yost & Bro., 1002 Pennsylvania avenue S. E., and J. N. McIntosh, 1518 East Capitol street, are estimating on construction; bids to be in June 6; Spelden & Spelden, architects, 705 G street N. W.

Washington, D. C.—Business Building.—E. C. Brainerd, 1410 G street N. W., has sold to clients lots at 1331 and 1333 G street N. W., which will be improved with steel-frame fireproof business building.

Washington, D. C.—Business Building.—Louis P. Keyser, 1218 19th street N. W., has purchased lots at northwest corner 12th and F streets N. W. and will erect business buildings on the site, which is 83x107 feet.

Washington, D. C.—Store Buildings.—David Moore, 1329 New York avenue N. W., represents clients who have purchased lots at 1313

and 1315 New York avenue, on which store buildings will be erected.

Washington, D. C.—Convenience Station.—Henry B. F. Macfarland, Henry L. West and John Biddle, commissioners District of Columbia, have awarded contract to Ambrose R. Stannard, 13th and B streets S. W., for the construction of convenience station at 13½ E street and Pennsylvania avenue at his bid of \$18,500.

Waxahachie, Texas.—Mill Building.—Waxahachie Cotton Mills will receive bids until June 11 for erection of addition to building. Plans and specifications may be seen at office of mill; also at the Citizens' National Bank, Waxahachie. Certified check for \$1000, payable to T. A. Ferris, must accompany each bid. Usual rights reserved.

Waycross, Ga.—School Building.—City will vote on a \$25,000 bond issue for school building. Address The Mayor.

Wheeling, W. Va.—Dwelling.—John O. Schenck has permit for erection of proposed two-story frame residence to cost \$8000.

Wheeling, W. Va.—Hotel.—Plans and specifications have been completed for proposed improvements to the McLure Hotel; cost \$45,000.

Wilson, N. C.—Office Building.—Wilkins Bros. & Benton are preparing plans for office building for Drs. A. F. Williams and W. H. Anderson, 47.5x75 feet; fireproof construction; steam heat; electric lights; cost \$14,000.*

RAILROAD CONSTRUCTION.

Railways.

Albany, Ga.—C. K. Lawrence of Savannah, Ga., engineer of construction for the General of Georgia Railway, has completed preliminary survey for a line from Albany, Ga., to Quincy, Fla., 75 miles, and the location survey is to be made immediately.

Alcolu, S. C.—President D. W. Alderman of the Alcolu Railroad is reported as saying that the line which now extends from Alcolu to Beulah, 25 miles, will be extended this summer five miles to Mott's Crossing on Lynch's river. A movement is also under way at Manning, S. C., to secure a further extension to that point. D. M. Bradham, mayor of Manning, can probably give information.

Alexandria, La.—A survey has begun on the proposed Rock Island line from Alexandria to Eunice, La., 55 miles. G. Knobel is engineer in charge of location and construction, with headquarters at Alexandria.

Anderson, S. C.—The Chattanooga, Anderson & Atlantic Railroad Co., which proposes to build a line from Chattanooga, Tenn., to the Atlantic ocean, has elected directors as follows: J. E. Breazeale, P. K. McCully, Sr., J. J. Fretwell, Rufus Fant, W. R. Osborne of Anderson, Albert R. Martin, Frederick A. Johnson, J. H. Lea of Chicago and N. B. Neeler of Milwaukee. Officers were also chosen thus: Albert B. Martin, president; Frederick A. Johnson, vice-president and general manager; P. K. McCully, Sr., treasurer; B. F. Whitner, general counsel; Lewis R. Emery, assistant treasurer.

Apalachicola, Fla.—R. B. Coleman, general manager of the Apalachicola & Northern Railway, is reported as saying that 65 miles are now ready for tracklaying. The line will run from St. Joseph's Bay via Apalachicola and Quincy, Fla., to Bainbridge, Ga., about 150 miles.

Ardmore, I. T.—Charles Bradshaw of Kansas City will superintend the building of an overhead trolley line at the Overbrook asphalt mines, about eight miles from Ardmore.

Athens, Ga.—Parker & Co. of Macon have, it is reported, received the contract to grade the Athens freight terminal of the Central of Georgia Railway.

Atlanta, Ga.—The Atlantic & Birmingham Construction Co. has sold in New York \$8,000,000 of 5 per cent. four-year notes to a syndicate composed of the Trust Company of America and Clark, Dodge & Co. of New York and the Old Colony Trust Co. of Boston. The proceeds are to be used for financing the construction of the Atlanta, Birmingham & Atlantic Railway, which is building an extension of the Atlantic & Birmingham Railway from Montezuma, Ga., to Birmingham, Ala., together with two branches to Atlanta.

Atlanta, Ga.—Application has been made for a franchise in Atlanta for the Atlanta, Griffin & Macon Electric Railway Co., which proposes to build a line 88 miles long from Atlanta to Macon. The petitioners are W. J. Kincaid, Seaton Grantland, J. M. Brawner and N. E. Drewry of Griffin, Ga.; W. J. Massey, Minter Wimberly and J. T. Moore of Macon; N. P. Pratt, Clifford L. Anderson and W. A. Wimblish of Atlanta.

Atlanta, Ga.—The Gate City Terminal Co. has been granted a charter to build the proposed entrance for the Atlanta, Birmingham & Atlantic Railway from Howell's Station into Atlanta, four miles. P. S. Arkwright and others are the incorporators.

Augusta, Ga.—The Augusta & Northwestern Railway Co. has applied for a charter to build a line 90 miles long from Augusta to Athens, Ga. The petitioners are E. F. Verdery, P. D. Langdon, Charles T. Fargo, Bryan Lawrence, W. W. Ramsey, W. E. Andrews, J. T. Smith and W. B. White, all of Augusta; capital stock \$100,000.

Augusta, Ga.—Application has been made to charter the Georgia & Florida Railway Co., which is to effect the consolidation of several railways in which John S. Williams of Richmond, J. William Middendorf of Baltimore and others of Augusta are interested, and also the construction proposed in connection therewith, as heretofore noted. The total length of line, including branches, will be 350 miles. The incorporators are John S. Williams and E. L. Bemiss of Richmond, Va.; J. Wm. Middendorf of Baltimore, Md.; E. H. Callaway, George R. Lombard, Jacob Phinizy, James F. McGowan, James T. Bothwell, Frederick P. Pope, Wm. E. Bush and Wm. H. Barrett of Augusta, Ga.

Baltimore, Md.—The Western Maryland Railroad Co. has let a contract to the Chesapeake Contracting Co. to build second track from Arlington, in the suburbs of Baltimore, to Owings Mills, Md., about 10 miles. J. W. Galbreath is engineer for the railroad.

Baltimore, Md.—Reported that the Towson & Cockeysville Railway Co., which projects a line from Cockeysville, Md., to Towson, Md., will also build about four miles further from Towson to Baltimore city. J. Alexis Shriver is president of the company, and James S. Nussear of Lutherville, Md., is secretary.

Banner, Va.—The Little Tom's Creek Railway Co. is reported organized and chartered in the interest of the Virginia Iron, Coal & Coke Co. to build a line from a connection with the Norfolk & Western Railway at Banner to the Marion coal mines. John B. Newton, Bristol, Tenn., who is vice-president and general manager of the Virginia & Southwestern Railway, is president of the new company.

Birmingham, Ala.—The Tidewater Development Co. has been incorporated with authorized capital of \$100,000 to build and operate railroads, etc., including power plants. The officers are: James M. Dewberry, president; Lewis Minor, vice-president; J. W. Donnelly, secretary; E. F. Ensen, treasurer, and Forney Johnston, attorney. The board of directors consist of the officers and R. H. Little, Louis Saks, J. D. Hancock, Robert D. Johnston, Jr., and J. B. Chesney.

Bryan, Texas.—The Business Men's League, W. E. Saunders, president, has appointed a committee, headed by Mayor J. E. Butler, in the interest of the proposed electric railway from Bryan to the Agricultural and Mechanical College. President H. H. Harrington and others of the college represents that institution in the movement.

Bunkie, La.—Reported that the Texas & Pacific Railway projects a new line from Bunkie via Eunice, La., to Orange, Texas, requiring about 150 miles of new construction. B. S. Watlen is chief engineer of the Texas & Pacific at Dallas, Texas.

Dallas, Texas.—W. Sherwin Maple, general attorney, and L. K. Davis, president of the Rock Island Construction Co., are reported to be desirous of arranging for the location of townsites and 500 miles of the proposed line to run from McKinney, Texas, via Denton, Texas, New Mexico & Pacific Railway, which Texas, to Roswell, N. M. It is further reported that grading forces have been assembled at McKinney, Texas, the present headquarters.

Danville, Va.—Reported that the Southern Railway Co. is surveying for a change of line from Lynchburg to Danville, Va. J. A. Dodson is superintendent of construction at Lynchburg.

Dardanelle, Ark.—H. M. Jacoway is reported as saying that construction is progressing rapidly on the 10-mile railroad from Dardanelle to Oln, Ark., and that about six miles have been graded.

Durham, N. C.—A movement is under way to secure an extension of the Raleigh & Pamlico Sound Railroad northwest from Raleigh to Durham, about 22 miles. Chas. O. Haines is president at Raleigh, N. C.

El Campo, Texas.—The Gulf, Colorado & Santa Fe Railway will, it is reported, build an extension of eight miles from Glen Flora to El Campo and thence to Victoria, Texas. C. F. W. Felt is chief engineer at Galveston, Texas.

El Paso, Texas.—The Organ Mountain Railroad Co. of Texas, with headquarters at

El Paso, has filed its charter to build a line from El Paso, through El Paso county about 15 miles, to a point on the New Mexico boundary; capital \$100,000. The incorporators are Harris Walthall, D. Y. Hadley, A. S. Cox, A. M. Walthall, H. W. Fall, W. S. Cromble, Dan M. Jackson, J. W. Eubank of El Paso, N. D. Streeter of Philadelphia and Adrien A. Jones of Las Vegas, N. M. The proposed line is to extend in New Mexico to the Organ mountain mining district, 75 miles from El Paso.

Finchburg, Ala.—The Flat Creek Mill Co. writes the Manufacturers' Record denying a press report that it contemplates building a railroad to Mobile, but says that it is figuring on building a line to connect with the Louisville & Nashville Railroad.

Fort Valley, Ga.—Reported that the Miona Springs Railway Co. will apply for a charter to build a line from Southland, on the Atlanta, Birmingham & Atlantic Railroad, about 10 miles, to either Fort Valley or Marshallville, on the Central of Georgia Railway, via Miona Springs. Those interested are F. O. Miller, A. B. Greene, A. J. Evans, J. R. Lane, C. B. Culpepper, C. L. Shepard, C. W. Arrowsmith, W. W. Henderson and A. O. Brewton of Fort Valley and others of Macon county, Georgia.

Groveton, Texas.—Mr. W. F. N. Davis, vice-president of the Trinity County Lumber Co., informs the Manufacturers' Record that Mr. P. A. McCarthy of Lufkin, Texas, is chief engineer in charge of the North & South Texas Railroad Co., which has filed its charter to build a line from Groveton to Lufkin and also from Groveton to Houston, Texas, a total distance of 150 miles. Mr. W. T. Joyce of Chicago, Ill., who is president of the lumber company, will also be president of the railroad, and Mr. Davis will be vice-president and manager. The other officers have not yet been selected. The board of directors consists of W. T. Joyce, W. F. N. Davis, J. P. Stevenson of Groveton, T. S. Foster and T. H. Ball of Houston, W. S. Gibbs of Huntsville and E. J. Mantooth of Lufkin.

Guthrie, O. T.—The Oklahoma, Texas & Gulf Railroad Co., capital \$7,000,000, has been granted a charter in Oklahoma to build a line from Little Rock, Ark., through the Indian Territory and Oklahoma to connect with the Fort Worth & Denver City Railway between Childress and Clarendon, Texas, with a branch from a point in the Chickasaw Nation to Sherman, Texas, and another branch from a point in Greer county to either Erick or Texola, O. T., a total distance of 350 miles. Headquarters are at Blair, O. T.; Ardmore, I. T., and Fort Worth, Texas. The incorporators are C. A. Huber of Weatherford, F. R. Wildman of Blair, E. A. Williams of Roosevelt, R. K. Wooten of Chickasha, I. T.; R. Burdge, Felix P. Bath and L. B. Comer of Fort Worth, J. W. Buchanan of Van Buren, Ark.

Harriman, Tenn.—Reported that Northern capitalists are working on a plan to build a motor-car line to connect Harriman, Kingston, Rockwood, Cardiff and Emory Gap. The mayor may be able to give information.

Harrison, Ark.—The Settle-Price Construction Co. is reported as saying that work will soon begin on the proposed electric railways from Harrison to Bergman, Ark.

Jackson, Miss.—Reported that a timberland deal will soon be closed which will result in building a railroad from Jackson up the Pearl river valley. Howard Marsh and F. E. Watrous represent a syndicate who are the purchasers. The property is sold by Baldwin & Unsell of Clarksburg, Tenn., and Bardstown, Ky., and Allen Brothers & Wadley of Shreveport, La.

Lafayette, La.—Hemlingway & Voss of Jackson, Miss., are preparing to begin grading on the Lafayette & Baton Rouge extension of the Southern Pacific.

Lexington, Ky.—The Central Kentucky Traction Co. has, it is reported, turned over to Chandler Bros. & Co. of Philadelphia the interurban line from Lexington to Versailles. Other construction is proposed.

Lexington, Ky.—Reported that the Bluegrass Traction Co. will build an extension from Georgetown via Beachwood Springs to Owenton, Ky. Louis Des Cognets is president at Lexington.

Lyman, Miss.—The Ingram-Day Lumber Co. of Lyman will, it is reported, build two railroad branches of 10 miles each, besides relaying 10 miles of standard-gauge track. Chas. L. Wood of Columbus, Miss., is engineer.

Maysville, Ky.—A meeting of the Maysville, Carlisle, Millersburg & Paris Traction Co. has been called for June 5 to act on plans for financing its proposed line. James N. Kehoe is president, and among others interested are C. C. Cole and W. B. Ratliff of Carlisle, C. W. Howard of Millersburg and J. W. Spencer of Ewing, Ky.

Montgomery, Ala.—Reported that the Louisville & Nashville Railroad will build yard tracks on part of the M. C. Scott plantation near Riverside Park, which has been purchased by W. M. Marks, Jr. W. A. Courtenay is chief engineer at Louisville, Ky.

Nashville, Ark.—Reported that a contract is signed by Nashville citizens with C. C. Henderson of Arkadelphia, Ark., to build a standard-gauge railroad from Nashville via White Cliffs, on Little river, to a point near Ashdown, Ark., on the Kansas City Southern Railroad, about 23 miles.

Nashville, Tenn.—J. H. Connor, president and general manager of the Nashville & Huntsville Railway, is quoted as denying the press report which said that he had stated that its rights and franchises had been sold to the Atlanta, Birmingham & Atlantic Railway. He further says the line will be an independent railroad from Nashville to Pensacola, Fla., via Birmingham and Montgomery, Ala.; also that the road will enter Nashville over the line of the Nashville Terminal Co.

New Iberia, La.—George Smith of Beaumont, Texas, is reported to have taken a large subcontract for pilingdriving on the Central Railway of Louisiana under the Myrick Construction Co. of Beaumont, which has the general contract.

Oakdale, La.—An officer of the Gulf, Colorado & Santa Fe Railway informs the Manufacturers' Record that the company has made no survey nor any plans covering an extension beyond Oakdale. The line to Oakdale is part of the original plan to reach the Louisiana timber. This denies a late press report of an extension to New Orleans.

Ocean City, Md.—Frank H. Sloan of Baltimore has, it is reported, made a survey for the proposed line of the Baltimore & Ocean City Railroad between Ocean City and Fenwick Island, 10 miles. H. C. Turnbull, Jr., of Baltimore is president; E. L. Tunis of the same city is vice-president, and J. Coleman Drayton of New York is treasurer of the American Monorail Co., which controls the patent for the particular type of railroad that is to be built.

Ocella, Ga.—The Ocella & Valdosta Railroad Co. will, it is reported, amend its charter to build a 90-mile extension from Ocella to Macon, Ga. J. A. J. Henderson is president at Ocella.

Ontario, Va.—C. M. Halley of Ontario has, it is reported, arranged to build a tramway from Ontario to Traffic, 14 miles, to develop timber lands.

Orangeburg, S. C.—Another project to build an electric railway from the town of North, S. C., via Orangeburg to the Santee river is reported. New York capital is said to be interested. President R. H. Jennings or Secretary Solomon Kohn of the Orangeburg Business Men's League can probably give information.

Richmond, Va.—W. D. Duke, general manager of the Richmond, Fredericksburg & Potomac Railroad, is reported as saying that storage tracks with a capacity of 100 cars will be added to the yard in Richmond.

Richmond, Va.—The Southern Railway Co. has purchased the Trigg shipyard property, it is reported, and will build tracks thereon.

San Antonio, Texas.—Reported that the interurban electric railway projected by R. S. Reese will, in addition to building from San Antonio to Austin, 80 miles, also build 120 miles more of line, all of which will connect the following places: Llano, Marble Falls, Kingsland, Burnet, Austin, Lockhart, New Braunfels and San Antonio, Texas, besides many smaller places.

San Saba, Texas.—The San Saba Valley Railroad Co. has filed its charter to build a line from Antelope Gap, on the Santa Fe system, to Crothers via San Saba, 50 miles. The incorporators are E. Campbell, T. A. Murray, N. R. Sloan, Robert G. Coryell, W. S. Sanderson, Archie Woods, E. L. Rector, J. R. Cunningham, W. F. Sullivan, John Kelly, John H. Martin, J. K. Rector, R. M. Ward, G. P. Holman, U. M. Sanderson, G. H. Sanderson, J. D. Estep, J. R. Polk and B. R. Russell, all of San Saba.

Siloam Springs, Ark.—Reported that President J. E. Felker of the Rogers Southwestern Railway is investigating for an extension of the line to Siloam Springs, about 20 miles, 10 miles being already graded. His address is Rogers, Ark.

Sildell, La.—N. G. Pearsall, general manager of the New Orleans Great Northern Railroad, is reported as saying that the construction contract covers 98 miles from Sildell northward. No other contract is now to be let. Construction is going on rapidly, and by the first week in June will be completed to Bogalusa, 35 miles from Sildell.

St. Louis, Mo.—The Des Peres Valley Railroad Co., capital \$50,000, has been chartered

in the interest of the Scullin-Gallagher Iron & Steel Co. to build a terminal line four and one-half miles long in St. Louis. The stockholders are John Scullin, Frank M. Johnson, John M. Mohr and Ed S. Roberts.

St. Louis, Mo.—The St. Louis & Florissant Valley Railroad Co. has been chartered to build a line eight miles long from St. Louis to St. Ferdinand, Mo. The directors are Eugene Selvin and James W. Darst of Ferguson, Charles A. Cunningham and Ed Schneiderwhalen of St. Louis, Ben Blewitt of Woodlawn and W. S. Wheaton of Jennings, Mo.

Tennille, Ga.—The Wrightsville & Tennille Railroad Co. It is reported, will build a three-mile extension from Tennille to Sandersville, Ga. A. F. Daley is president at Tennille.

Union, W. Va.—Reported that the Norfolk & Western Railway will build 45 miles of the proposed railroad through Potts Creek valley and that the Chesapeake & Ohio Railway will build 30 miles on the same line out of Covington, W. Va. C. S. Churchill, Roanoke, Va., is chief engineer of the Norfolk & Western, and H. Pierce is engineer of construction of the Chesapeake & Ohio at Richmond, Va.

Vicksburg, Miss.—The Board of Trade has, it is reported, agreed to subscribe \$50,000 to the proposed Vicksburg & Gulfport Railroad under certain conditions.

Street Railways.

Atlanta, Ga.—President P. S. Arkwright of the Georgia Railway & Electric Co. is reported as saying that the company is considering a plan to build a line to Stone Mountain, but it is not yet adopted.

Austin, Texas.—William Gallatin Carroll & Co. of New York have called to the city council for a franchise for a street-railway belt line to be operated in connection with the proposed electric railway from Austin to Lockhart.

Dallas, Texas.—E. T. Moore, manager of the Dallas Consolidated Railway Co., is reported as saying that the laying of double track on the rapid transit or south belt line will soon begin.

Fort Worth, Texas.—Both the Rosen Heights Street Railway Co. and the Fort Worth & Arlington Heights Traction Co. are reported to be considering plans to build a line to the South Side.

Joplin, Mo.—D. K. Wenrich and W. H. Smith of Joplin have applied to the city council for an electric-railway franchise over seven miles of streets.

Norfolk, Va.—The Norfolk & Portsmouth Traction Co. is considering a plan to extend its Churchland line. E. C. Hathaway is general manager at Norfolk.

Suffolk, Va.—The Norfolk Railway & Light Co. has been granted a street-railway franchise in Suffolk.

Vicksburg, Miss.—Houston Bros. have applied to the city council for a franchise to operate electric cars on all streets.

Washington, D. C.—George G. Boteler, general manager of the Great Falls & Old Dominion Railroad, is reported as saying that grading is completed on the last section, that single track will be in operation by July 1, and that bids will then be requested for building second track over the whole line.

Washington, D. C.—The Capital Traction Co. has, it is reported, let the contract to E. Saxton for the extension of the 14th-street line, about two miles, to the Brightwood Driving Park.

Sales of Shay Locomotives.

A list of Shay locomotive sales for the week ending May 26 includes the following: C. A. Goodyear Lumber Co., Tomah, Wis., one 45-ton Shay; Lewisburg & Ronceverte Electric Railway, Lewisburg, W. Va., two 45-ton Shays; Grant Land & Lumber Co., Selma, La., one 37-ton Shay; Title Guarantee & Trust Co., Tampa, Fla., one 14x20 mogul; Culbreath Logging Co., Huttig, Ark., one 37-ton Shay, and Flint, Erving & Stoner Lumber Co., Dunlevie, W. Va., one 65-ton Shay. These locomotives are built by the Lima Locomotive & Machine Co. of Lima, Ohio.

Elliott Addressing Machines.

Because of the popularity of the Elliott addressing machines, which are manufactured by the Elliott Company, 100 Purchase street, Boston, Mass., it is stated that other manufacturers are trying to increase the sale of their machines by taking advantage of a similarity of names, and customers of the Elliott Company receiving communications in this connection are annoyed, as they are satisfied with the Elliott system. The recent earthquake and fire in San Francisco has created an active demand for addressing machines in that city, and the Elliott Company, it is stated, is supplying a large number to meet the requirements.

MACHINERY, PROPOSALS AND SUPPLIES WANTED.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.

Alcohol Machinery.—Wogan Bros., Port and Decatur streets, New Orleans, La., want bids on machinery for making alcohol.

Barge.—Chambers Transfer Co., Macon, Ga., wants a gasoline barge for transporting barges of logs, say 25,000 to 30,000 feet daily.

Bed-factory Equipment.—See "Iron-working Machinery."

Boilers.—American Tri-Metallic Paint Co. wants two self-stoking boilers, not less than 150 horse-power each. H. V. Stapleton, engineer in charge, Sandusky, Ohio, can be addressed at Chattanooga, Tenn. (where plant will be located), after June 1. (See "Paint-works Equipment.")

Boilers.—See "Engines and Boilers."

Bolting Machinery.—See "Paint-works Equipment."

Bottles and Boxes.—See "Powder (Toilet) Factory Equipment."

Box and Crate Machinery.—Maurice Rosenthal, Lake Charles, La., wants machinery for making boxes and crates. (See "Crate Machinery.")

Bridge Construction.—Bids for the construction of a steel bridge 300 feet long over Meramec river in Crawford county are asked until June 5 by G. L. W. Smith of Hinch, Mo., at Steelville, Mo. William C. Evans is county clerk.

Bridge Construction.—J. H. Barron, ordinary of Carroll county, Carrollton, Ga., will receive bids until June 5 for constructing substructure and superstructure of steel highway bridge over Tallapoosa river, four and one-half miles from Carrollton, at Simonton's Mill.

Bridge Construction.—E. R. Monroe, Crystal Hill, Va., wants bids on the construction of a 16-foot roadway bridge, two spans, 150 feet each, to be built across Staunton river at Brookneal, Va.

Bridge Construction.—Williamsburg County Commissioners, Kingstree, S. C., will open bids June 11 for construction of steel bridge across Black river. Plans and specifications can be seen in the office of J. J. Graham, supervisor of Williamsburg county. Certified check for \$100 must accompany each bid. Usual rights reserved.

Broom Machinery.—Crites Broom Co., E. J. Crites, president, Lawton, O. T., will want broom machinery in the fall.

Building Materials.—Victory Manufacturing Co., Fletcher M. Cook, treasurer, 127 Donaldson street, Fayetteville, N. C., invites estimates on building materials for cotton mill of 25,000 spindles and 800 looms.

Building Materials.—Drs. Williams & Anderson, Wilson, N. C., want prices on pressed brick No. 1, granite and plate glass.

Building Materials.—Lee Veneer Co., Lexington, N. C., wants prices on building materials.

Cider and Vinegar Manufacturing.—W. Jones, 716 Century Building, Atlanta, Ga., wants literature pertaining to the manufacture of cider and vinegar by chemical or artificial process.

Cooperage Machinery.—American Tri-Metallic Paint Co. wants barrel and keg machinery for paint works to be located at Chattanooga, Tenn. H. V. Stapleton, engineer in charge, Sandusky, Ohio, can be addressed at Chattanooga, Tenn., after June 1.

Coffin-factory Machinery.—Junction City Manufacturing Co., Paschal, Ga., wants coffin-factory machinery.

Concrete-block Machinery.—De Loach Mill Manufacturing Co., A. A. De Loach, president, Atlanta, Ga., wants information as to cost of manufacturing concrete or cement blocks for building purposes, especially for factories.

Cotton Mill.—Victory Manufacturing Co., Fletcher M. Cook, treasurer, 127 Donaldson street, Fayetteville, N. C., invites estimates on machinery and supplies for cotton mill

of 25,000 spindles and 800 looms, manufacturing print cloth.

Crushing Machinery.—Manufacturers of crushing and pulverizing machinery are advised to note item headed "Paint-works Equipment."

Dam Construction.—Coleman Water Supply Co., J. A. B. Miller, president, Coleman, Texas, will let contract June 20 for construction of an earthen dam to contain about 58,000 cubic yards of earth; plans and specifications on file in the company's office. Usual rights reserved.

Ditching Machinery.—Seth S. Barnes, Marston, Mo., wants ditching machinery.

Drainage Construction.—New Madrid county, Missouri, will let contract July 9 for the construction of a ditch 14 miles long from 4 to 14 feet deep and from 20 to 32 feet wide. For further information address L. C. Phillips, clerk, New Madrid, Mo., or Seth S. Barnes, Marston, Mo.

Dredging.—Rocky Mount Mills, Thomas H. Battle, treasurer, Rocky Mount, N. C., wants addresses of firms dredging in interior waters.

Drying Machinery.—See "Paint-works Equipment."

Electric-light Plant.—American Tri-Metallic Paint Co. wants plant for lighting paint factory. H. V. Stapleton, Sandusky, Ohio, engineer in charge, can be addressed at Chattanooga, Tenn., after June 1. (See "Paint-works Equipment.")

Electric Plant.—Otho Fowler, Kuttawa, Ky., wants machinery for 1500-incandescent-light plant. (See "Ice Machinery.")

Electrical Equipment.—Rock Creek Coal & Lumber Co., Somerset, Ky., wants an electrical haulage system for coal mines. (See "Mining Machinery.")

Electrical Equipment.—J. F. Ball & Bro. Lumber Co., Ltd., Ball, La., wants price on one 500-light dynamo with switchboard and all connections.

Elevator.—J. W. Kelly & Co., 13-15 West 9th street, Chattanooga, Tenn., want bids on electric freight elevator.

Engine.—L. N. Callaway, Milledgeville, Ga., wants engine to be used on boat for hauling lumber.

Engine.—J. H. Crutchfield, 238 People's Building, Atlanta, Ga., wants one second-hand 16x42 Corliss engine.

Engine.—Peacock's Iron Works, Selma, Ala., wants a 70 to 80-horse-power second-hand stationary slide-valve steam engine for sawmill.

Engine.—Smith Bros. Grain Co., Fort Worth, Texas, wants a 50 to 60-horse-power gasoline engine.

Engine.—J. H. Leslie & Co., Leesburg, Va., want prices on gasoline engines.

Engines.—See "Paper Manufacture."

Engines.—Junction City Manufacturing Co., Paschal, Ga., wants 75 and 100-horse-power engines.

Engines and Boilers.—Lee Veneer Co., Lexington, N. C., wants prices on engines and boilers.

Engines and Pumps.—Bids will be received until June 15 for furnishing f. o. b. Chatham, Va., two gasoline engines and small triplex pumps for municipal water-works. For specifications address J. H. Hargrave, Jr., mayor, Chatham, Va., or J. N. Ambler, engineer, Salem, Va.

Evaporating Machinery.—Ed A. Lowry, Cedartown, Ga., wants evaporating machinery.

Fertilizer Mixer.—P. L. Woodard, Wilson, N. C., wants fertilizer-mixing machinery.

Filters.—W. Jones, 716 Century Building, Atlanta, Ga., wants addresses of manufacturers of filters for commercial purposes.

Fire-escapes.—C. A. Gambrill Manufacturing Co., 225 Commerce street, Baltimore, Md., wants addresses of manufacturers of portable fire-escapes; the rope and sliding belt type by which persons can be lowered from building by placing belt around waist and operating device on belt for controlling speed.

Grinding Machines.—See "Powder (Toilet) Factory Equipment."

Heating Plant.—American Tri-Metallic Paint Co. wants steam-heating plant for factory. H. V. Stapleton, Sandusky, Ohio, engineer in charge, can be addressed at Chattanooga, Tenn., after June 1. (See "Paint-works Equipment.")

Ice Machinery.—Otho Fowler, Kuttawa, Ky., wants ice machinery.

Iron-working Machinery.—R. C. Christner, Fort Smith, Ark., wants machinery for making iron beds and spring beds. (See "Spring-bed Machinery.")

Knitting Machinery.—W. H. Jones, Paris, Ark., wants prices on knitting equipment

and addresses of experienced engineers of construction.

Levee Work.—J. T. McClellan, president board of commissioners Fifth Louisiana levee district, will open bids June 5 at the United States engineer's office, 108 West Crawford street, Vicksburg, Miss., for the construction of Sycamore levee, parish of Concordia; approximate contents 300,000 cubic yards; deposit required \$800; bond required \$15,000. Information as to location, character of work and blank forms for proposal may be obtained at office of board of State engineers, Room 402 Cotton Exchange Building, New Orleans, La., or at office of Fifth Louisiana Levee District, Tallulah, La. Usual rights reserved; N. H. Lewis, secretary.

Levee Work.—Bids will be received by N. M. Davis, president, and R. R. Redditt, clerk police jury, Caldwell parish, Columbia, La., until July 2 for constructing Sandy Bayou dike, Caldwell parish, 16,000 cubic yards. A deposit in cash or certified check to the amount of \$115 must accompany each bid. Usual rights reserved. Information and blank forms for proposals may be obtained on application.

Logging Equipment.—Chambers Transfer Co., Macon, Ga., wants steam skidder or steam logging outfit for handling very heavy timber in a large swamp.

Machinery Manufacturers.—B. J. Robinson, Vicksburg, Miss., is prepared to consider propositions for representing manufacturers of machinery. (He has a foundry and machine plant.)

Marble Panels.—Electric Manufacturing & Equipment Co., Atlanta, Ga., wants to correspond with parties in position to furnish blue Vermont marble switchboard panels, finished to size.

Marine Engine.—See "Engine" (L. N. Callaway item).

Mattress Machinery.—E. J. Etheredge, Leesville, S. C., wants machinery for making cotton, wool and excelsior mattresses.

Metalgoods Manufacturers.—See "Wire-goods Manufacturers."

Mill Supplies.—See "Cotton Mill."

Mill Supplies.—Lee Veneer Co., Lexington, N. C., wants prices on mill supplies.

Mining Machinery.—Rock Creek Coal & Lumber Co., Somerset, Ky., wants coal-mining machinery and an electric haulage system for mines. Compressed air will be used for mining.

Oil-fuel Device.—See "Paper Manufacture."

Oil-mill Machinery.—J. H. Crutchfield, 238 People's Building, Atlanta, Ga., wants Callahan Buckeye or Smith-Valle cooking heaters for cottonseed-oil mill; also one Smith-Valle 15-box press and one Van Winkle 15-box press; all second-hand in good condition.

Paint-works Equipment.—American Tri-Metallic Paint Co. wants equipment for drying, crushing, pulverizing, and probably bolting, raw materials for paint works; annual output 30,000 barrels dry paint and 2,500,000 gallons ready-mixed paints; plant at Chattanooga, Tenn. H. V. Stapleton, engineer in charge, Sandusky, Ohio, can be addressed at Chattanooga, Tenn., after June 1.

Paper Manufacture.—Mr. Reiser, president of the Reiser Machine Shops, Lake Charles, La., invites information of a technical character regarding the manufacture of paper, using gum trees and oil fuel.

Paving.—Corporation of Suffolk, Va., will receive bids until June 7 for granite-bit paving in Washington Square, approximately 1000 square yards. Suffolk standard specifications on file in office of Lee Shaffer, engineer. Propositions for other class of paving will be considered if accompanied by specifications. Usual rights reserved. Address bids to Simon M. Lawrence, clerk of council; J. H. Macleary, chairman street committee.

Paving.—Leaksville, N. C., is receiving bids and specifications for constructing \$10,000 worth of cement sidewalks. For information apply to J. W. Norman, town treasurer.

Paving.—Bids will be received until June 22 by L. W. Tazewell, chairman street committee, care city treasurer, Norfolk, Va., for improvements to Main street. An approximate schedule of the work is shown on blank form of proposal attached to specifications, which may be obtained on application to W. T. Brooke, city engineer. No partial bids will be received. Certified check on some local bank must accompany each bid under conditions expressed in the blank proposal. Street committee reserves usual rights.

Paving.—R. S. Williams, city treasurer, Montgomery, Ala., will receive bids until June 18 for paving and otherwise improving South Hull street from Washington to South street, the roadway to be paved with either vitrified brick, bitulithic, asphalt or gravel;

for paving Sayre street from Clayton to Jefferson Davis avenue, roadway to be paved with either vitrified brick, bitulithic or asphalt; approximate quantities 22,500 square yards. Plans and specifications on file in the city engineer's office. Certified check for \$500 must accompany each bid. Usual rights reserved.

Piping.—See "Water-works Equipment."

Piping.—Sealed proposals, addressed to the Board of Awards, Baltimore, Md., will be received until June 6 at office of Harry F. Hooper, city register, City Hall, for furnishing piping. Specifications and proposal sheets may be obtained from office of Board of Park Commissioners, Druid Hill Park.

Pottery.—R. A. Thompson, 318 Empire Building, Atlanta, Ga., wants addresses of manufacturers of equipment for making jugs. Will want machinery for a daily capacity of 3000 to 6000 gallons.

Powder (Toilet) Factory Equipment.—J. S. Byers, President International Mineral Remedy Co., Mulhall, O. T., wants toilet powder boxes, tablet machines, tin boxes, ointment jars, bottles, grinding machines, printing outfit and all equipment for toilet-powder factory.

Power Machinery.—J. S. Byers, president International Mineral Remedy Co., Mulhall, O. T., wants power machinery.

Printing Plant.—J. S. Byers, president International Mineral Remedy Co., Mulhall, O. T., wants printing outfit. (See "Powder (Toilet) Factory Equipment.")

Printing Plant.—American Tri-Metallic Paint Co. wants printing plant for advertising department. H. V. Stapleton, engineer in charge, Sandusky, Ohio, can be addressed at Chattanooga, Tenn. (where plant will be located), after June 1. (See "Paint works Equipment.")

Pumps.—See "Engines and Pumps."

Quarrying Equipment.—W. T. Moulton, Richmond, Va., wants second-hand quarry cars and rails for stone quarry.

Railway Equipment.—See "Quarrying Equipment."

Railway Equipment.—J. A. Bel Lumber Co., Lake Charles, La., wants 8 to 12 miles of relay steel rails, 30 to 35 pounds; also a 24-ton locomotive.

Railway Equipment.—W. R. Pickering & Co., Pickering, La., are in the market for 35 pound steel rails several miles in extent.

Railway Equipment.—J. M. Russ Lumber Co., Collins, Miss., wants one direct or geared locomotive, 12 to 15 tons, 36-inch gauge, new or good second-hand, for logging railroad.

Railway Equipment.—J. H. Macleary, Suffolk, Va., wants a 42-inch gauge, about 15 tons, either American type or mogul engine. Send specifications, photograph and quote price f. o. b. Suffolk.

Road-building.—Bids marked "Proposals for Roads, Walks, etc., Fort Sam Houston, Texas," and addressed to L. J. Fleming, constructing quartermaster, Fort Sam Houston, Texas, will be received until June 13 for grading, construction of roads, cement walks and drains at Fort Sam Houston, Texas. Plans and specifications on file in office of constructing quartermaster. United States reserves usual rights.

Road Improvements.—John Dyer, supervisor of roads, Louisville, Ky., will receive bids until June 14 for constructing and reconstructing 63 miles of pike in the county; estimated cost \$175,000.

Road Machinery.—West Construction Co., Chattanooga, Tenn., wants road machinery and tools except crushers.

Saw-mill.—Aaron Graham, Christiansburg, Va., wants a new or second-hand band resaw or circular.

Saw-mill Machinery.—Junction City Manufacturing Co., Pachel, Ga., wants saw-mill machinery.

Sewerage.—City of Cape Girardeau, Mo., William H. Coerver, mayor, will open bids July 2 for furnishing material and constructing a complete system of sewerage in Sewer District No. 1 in accordance with plans and specifications on file in office of George E. Chappell, city clerk; also at office of Granbery Jackson, C. E., Nashville, Tenn. Printed specifications may be obtained by addressing city clerk. Certified check for \$1000 must accompany each bid. Usual rights reserved.

Sewerage System.—Henry B. F. Macfarland, Henry L. West, John Biddle, commissioner, Washington, D. C., will receive bids until June 18 for constructing sewer. Forms, specifications and necessary information furnished on application.

Sewerage System, etc.—City of Belington, W. Va., B. B. Rohrbough, mayor, will open bids June 1 for constructing sewerage system and paving streets as per conditions

specified in ordinance allowing city to vote for bonds. Specifications and forms of proposals may be seen at office of A. J. Stalaker, city recorder, where plans and profiles may also be seen. Bids must be made on form of proposal attached to specification. Certified check for \$500 must accompany each bid. Usual rights reserved.

Shingle Mill.—Bankers' Lumber & Timber Co., Suite 423 First National Bank Building, Shreveport, La., wants complete shingle-mill machinery.

Spring-bed Machinery.—R. C. Christner, Fort Smith, Ark., wants machinery for making spring beds and iron beds. (See "Iron-working Machinery.")

Steamboat Machinery.—L. N. Callaway, Milledgeville, Ga., wants addresses of manufacturers of steamboat machinery.

Tanks.—W. Jones, 716 Century Building, Atlanta, Ga., wants addresses of manufacturers of tanks for commercial purposes.

Telephone System.—Bids will be received until June 28 at office of Frank E. Skinner, superintendent Post Fund, Southern Branch, N. H. D. V. S., National Soldiers' Home, Virginia, for furnishing material and labor for installation of local telephone system in accordance with instructions and specifications, copies of which, with blank proposals and other information, may be had on application.

Tin Cans.—M. L. Wyatt, R. F. D. No. 2, Lawndale, N. C., wants prices on tin cans to can fruit and vegetables in lots of 1000.

Veneering Machinery.—Maurice Rosenthal, Lake Charles, La., wants veneering machinery.

Veneering Machinery.—Lee Veneer Co., Lexington, N. C., wants prices on veneering machinery.

INDUSTRIAL NEWS OF INTEREST

Timber Properties for Sale.

Some Southern timber properties bearing poplar, white oak, hickory and chestnut, including a large quantity of tanbark, are offered for sale, and full details can be obtained by addressing "R." care of Manufacturers' Record.

To Sell Furniture Factory.

Attention is invited to the announcement of "Contractor," Lock Box 186, Knoxville, Tenn., of the sale of a nearly new furniture factory. The plant is conveniently located with reference to railroad and river transportation facilities, and is accessible to virgin hardwood forests.

Selected the Hornsby-Akroyd Engine

After investigating various makes of steam and internal-combustion engines the Massachusetts Talc Co., Boston, Mass., has decided to install two 125-horse-power "Hornsby-Akroyd" oil engines to drive general machinery by belt. The De La Vergne Machine Co. of New York has the contract for these engines.

Koerting Gas Engine Ordered.

The news note presented last week regarding the installation of a Koerting gas engine by the Penn Hardware Co. should have read as follows: "The Penn Hardware Co. of Reading county is installing a 150-horse-power Koerting gas engine to be run on producer gas, this engine being supplied by the De La Vergne Machine Co. of New York."

Ideal Concrete Machinery.

An examination of the recent statement of shipments during April by the Ideal Concrete Machinery Co. shows 260 orders, an average of more than 10 for each working day of that month. The shipments were sent to 35 States and to Scotland and New Zealand. The Ideal Concrete Machinery Co. is located at South Bend, Ind., and manufactures machinery for making concrete blocks for building purposes.

Pocahontas Coal Lands Offered.

Coal lands in West Virginia and Tennessee are offered for sale by certain owners who do not intend to develop. The properties include 1400 acres, another of 500 acres and a leasehold of 800 acres with a mine in operation in the Pocahontas field, 15,000 acres in Thacker field, 25,000 acres on the Deepwater Railway and a 30,000-acre tract in Tennessee. They can be investigated by writing to "Representative," care of the Manufacturers' Record.

Mr. John J. Metcalfe, Mill Supplies.

It is announced that John J. Metcalfe (recently of Metcalfe & McGrew, which firm

Water-works Equipment.—Bids will be received until June 14 at office of superintendent of Norfolk City Water Department, Norfolk, Va., for furnishing and installing water main from intersection of 12th street and Williams avenue, Norfolk, Va., to Jamestown Exposition grounds, consisting approximately of 10,300 feet of 16-inch cast-iron bell and spigot pipe, 23,200 feet of 12-inch cast-iron bell and spigot pipe, 1800 feet of 12-inch cast-iron submerged pipe, flexible-joint pattern, and all necessary special castings, gate valves, etc. Instructions to bidders, specifications and forms of proposal may be obtained on application at city water department; also at office of Manufacturers' Record, Baltimore, Md., and the Engineering News, New York, N. Y. Certified check for \$3000 must accompany each bid. Usual rights reserved.

Water-works Equipment.—H. H. Leslie & Co., Leesburg, Va., want prices on cast-iron water pipe, fire hydrants, calking lead, etc.

Windmills.—Fair Grounds Improvement Co., Jacobs Building, Clarksburg, W. Va., wants addresses of manufacturers of windmills or air motors for wells.

Wire-goods Manufacturers.—Louis Comak, Athens, Ga., wants addresses of manufacturers of small bent wire or light stamped metal articles, such as cuffholders or garter clasps.

Woodworking Machinery.—Jas. H. Brown, 7 Washington avenue, Brooklyn, N. Y., wants 10-inch to 12-inch Woods or Glencoe molder; second-hand.

Woodworking Machinery.—Palmetto Roller Mills, J. K. McGowan, manager, Spartanburg, S. C., wants addresses of manufacturers of machinery for making brackets.

Woodworking Machinery.—See "Veneering Machinery."

Woodworking Machinery.—See "Box Machinery."

ating machine, condensers, etc., and Pittsburg, Pa., John Vohr, one-and-one-quarter-ton refrigerating machine.

Factories Wanted at Joplin, Mo.

Efforts are being made to locate more manufacturing in Joplin, Mo., a thriving city which claims to have good labor conditions, ample railroad facilities and raw materials for various kinds of plants. The Commercial Club of Joplin is actively engaged in assisting in the location of new enterprises, and invites correspondence from manufacturers or other business men who may desire to establish plants in the Joplin territory. It is stated that Joplin investors are prepared to become interested in legitimate enterprises.

Chattanooga Iron and Wire Works.

In a note in this department last week the Manufacturers' Record inadvertently referred to the Chattanooga Iron Works when the title should have been given as the Chattanooga Iron and Wire Works of Chattanooga, Tenn. The many purchasers of ornamental and structural iron work and other goods of that character manufactured by the Chattanooga Company readily saw the error, and others who may have been interested in the reference are advised to note the correct name. The Chattanooga Iron and Wire Works has an extensive plant, and it is now busily engaged in meeting the demand for its product, which is being consumed largely throughout the South in building work.

Another Steamship for Chesapeake Company.

The Chesapeake Steamship Co. of Baltimore has awarded contract to the New York Shipbuilding Co. of Camden, N. J., for the construction of a new steel passenger steamer to ply between Baltimore, Norfolk, Yorktown, West Point and Richmond. The new steamer will be 285 feet long, 46 feet beam and 17.4 feet in depth. The power equipment will consist of a four cylinder triple-expansion engine and four Scotch boilers, each 13.4 feet in diameter and 12 feet in length. The speed called for in the contract is 19 knots. This steamer will be equipped throughout with electric call bells, steam radiators, electric lights and running water. The dining-room on the main passenger deck forward and the saloon will be finished in mahogany, and the smoking-room in hardwood. Contract calls for the completion of the steamer in 10 months, which will allow it to be placed in commission before the opening of the Jamestown Exposition, the company anticipating heavy passenger traffic at that time.

Recent Orders for Crocker-Wheeler Company.

The very general and active demand for the Crocker-Wheeler Company's electrical equipment is indicated by some recent orders which this company has received for equipping plants for municipal and other work. The city of Natchitoches, La., has placed an order for an engine-type, 105-kilowatt, alternating-current, 2300-volt generator for installation in its lighting plant. A carload of Form I. motors, ranging in outputs from one-quarter to three horse-power, has been recently shipped direct to San Francisco to be used in rebuilding the city. The company is also building at its plant at Ampere, N. J., the fourth and last of the 4000-kilowatt alternators ordered by the California Gas & Electric Corporation. Three of these machines, recently installed in a suburb of San Francisco, escaped injury during the earthquake and fire. The Sandusky Portland Cement Co. has placed orders for two engine-type, 750-kilowatt, 400-volt, alternating-current generators and two engine-type, 125-kilowatt, 125-volt, direct-current generators for use at Dixon, Ill. Orders have been received from the Saxon Leather Co. of Newark, N. J., for one 90-horse-power, 115-volt, direct-current motor, and from the Independent Brick Co. of Trenton, N. J., for one 80-kilowatt, 250-volt, direct-current generator and four D. C. motors, ranging from 3 to 25 horse-power, all of 230 volts. The main offices of the Crocker-Wheeler Company are at Ampere, N. J.

The Sibley-Menge Press-Brick Plant.

It will be of interest to the building trades throughout the South to learn that there has just been completed at Sibleyville, Ala., an extensive plant for the manufacture of high-grade face brick. This plant is owned by the Sibley-Menge Press Brick Co., offices in the First National Bank Building, Birmingham, Ala., and the plant at Sibleyville is on the Louisville & Nashville Railway, 25 miles north of Birmingham. The output is face brick in red, buff and fancy colors, as well as the various kinds of manganese speckled

brick, for all of which products there is a large demand in the South. The Sibley-Menge plant was designed by W. D. Richardson of Columbus, Ohio, and is thoroughly modern in all its departments and details, being equipped for the highest grade of product. Several hundred acres of land containing clays and shales of superior quality in great quantities are owned by the company, and will be developed in connection with the brick works. Already the Sibley-Menge output is being demanded by building contractors, building owners and architects in the Birmingham district, the buff bricks having been specified for a 15-story office building at Birmingham. Officers of the Sibley-Menge Press Brick Co. are: President, John W. Sibley, treasurer of the National Brick Manufacturers' Association; secretary and superintendent, W. L. Sibley, and vice-president and treasurer, Joseph A. Menge. The Messrs. Sibley have been for many years engaged in manufacturing vitrified paving brick and other clay wares, and Mr. Menge was formerly engaged in the sewer-pipe industry, having been one of the organizers of the Southern Sewer Pipe Co., now operating a large plant at North Birmingham.

TRADE LITERATURE.

The Triumph of Metal Shingles.

A brief pamphlet containing illustrations of interest has been issued under the title "The Triumph of Metal Shingle Roofing." It gives some data for perusal by those who want to be informed regarding successful roofing products, and refers especially to the Cortright metal, slate and Victoria shingles. The Cortright Metal Roofing Co. of Philadelphia manufactures the products mentioned.

To Sell Burrows Specialties.

Purchasers of steam specialties will be interested in a pamphlet which tells about an investment of value to coal users and steam makers. This publication presents brief yet full details regarding the steam specialties of the Burrows Manufacturing Co. of York, Pa. The company's products include the Burrows automatic steam-pump regulator and low-water alarm, automatic feed-water regulator and low-water alarm, back-pressure valve-pump regulator, automatic damper regulator and steam trap. These devices are demonstrating factors of their economy and safety in many steam plants, and should be investigated by people who are interested in this class of engineering devices. Mr. Harold N. Kelley has become interested in the selling department of the Burrows Manufacturing Co., with his main offices at 73 Warren street, New York city.

Fire Underwriters' Requirements.

A neat booklet containing the requirements of the National Board of Fire Underwriters for the manufacture of wired-glass and fireproof window frames of various constructions has been issued for the convenience of architects, builders and property-owners interested in fireproof construction. It is illustrated with cuts showing how each one of these requirements may be met, and how they are met in the Phoenix hollow sheet-metal window. To meet these requirements there are some very unique and ingenious features introduced in the Phoenix window which are doubtless the result of careful study of the requirements and an intimate knowledge of what is necessary to make a sheet-metal window thoroughly fireproof and efficient. The manufacturer of the Phoenix window will send a copy of the booklet to any applicant. The S. Keighley Metal Colling & Manufacturing Co. of Pittsburgh, Pa., is the manufacturer.

Aluminum and Aluminum Alloys.

Manufacturers and other operators in the industrial field who have occasion to use aluminum and aluminum alloys are advised that there has been issued for their benefit a book of information regarding the products named. The publication is about 7x5 inches in size and contains 70 pages of data with reference to the properties of aluminum and methods of working it, alloys, metals manufactured by the use of aluminum, gauges, tables, and various other facts of value to those who utilize aluminum products in their work. The book is issued by the Pittsburgh Reduction Co. of Pittsburgh, Pa., manufacturer of aluminum and aluminum alloys (under the patents of Charles M. Hall) in the form of ingots, bars, plates, sheets, tubes, wire and all other forms of structural shapes. This is the fifth edition of the company's book, and those who have had occasion heretofore to consult its pages have found the data to render them great assistance. A reference was made to this publication last week, but the publisher's title was slightly in error.

FINANCIAL NEWS

The MANUFACTURERS' RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office MANUFACTURERS' RECORD,

Baltimore, Md., May 30.

In the Baltimore stock market during the past week United Railways incomes, G.-B.-S. issues and Cotton Duck 5s scored further advances. There was also a rise in Seaboard shares. The market was active, and an improved feeling prevailed.

In the trading United Railways common sold from 16 to 16½; the trust certificates from 16½ to 17; the income bonds from 73½ to 75, and the income trust certificates from 72½ to 73½. United 4s were somewhat better, rising from 92½ to 92½. United Light & Power 4½s changed hands at 94. Consolidated Gas stock sold at 83, Gas 6s at 106½ and the 4½s at 98¾; Seaboard new common from 79¼ to 81¼; the new second preferred from 58¾ to 61; Seaboard 4s from 88 to 87½; the 10-year 5s at 101½ to 101¼. Cotton Duck 5s were dealt in from 84½ to 86; Consolidated Cotton Duck from 11 to 13, and the preferred at 33 and 34. G.-B.-S. common rose from 9¼ to 11; the incomes from 35½ to 37½; the 1sts from 62½ to 63¾.

Mechanics' Bank sold at 26; Citizens' Bank at 28¾, and International Trust at 150.

Other securities were traded in as follows: Norfolk Railway & Light 5s, 99¼; Suffolk & Carolina 5s, 99¾ to 100¼; Baltimore & Ohio rights, 5 to 5½; Brooklyn Rapid Transit, 81; Virginia Midland 5ths, 111½; Northern Central, 100 to 101; Baltimore Brick common, 8; do. preferred, 46; Georgia Southern & Florida 5s, 112¾; Western Maryland 2d 4s, 73; American Ice debenture 6s, 90; Baltimore Electric 5s, 87; Columbia & Greenville 1sts, 115¼; Lexington Railway 5s, 103¾ to 104; Maryland & Pennsylvania incomes, 68 to 67½; Atlantic Coast Line new 4s, certificates, 90½; Baltimore, Sparrows Point & Chesapeake 4½s, 97½; City & Suburban (Washington) 5s, 105½; Georgia & Alabama 5s, 110½; Georgia, Carolina & Northern 5s, 111½ to 111¾; George's Creek Coal & Iron, 75; Houston Oil common, 8½ to 9; do. preferred, 43 to 45; Baltimore City 3½s, 1130, 105; do. do. 1933, 105½; Atlantic Coast Line stock, 146½ to do. Connecticut, 360; Augusta Railway & Electric 5s, 106; Central Railway 5s, 114½; Maryland & Pennsylvania 4s, 94½; Western North Carolina 6s, 113½; Diamond Match, 1¼; West Virginia Central 6s, 108½; Western Maryland stock, 21½ to 21½; Alabama Consolidated Coal & Iron 5s, 91.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended May 30, 1906.

Railroad Stocks.	Par.	Bid.	Asked.
Atlantic Coast Line.....	100	145	150
Atlantic Coast Line of Conn.....	100	35¾	360
Georgia Sou. & Fla. 1st Pref.....	100	98	99
Georgia Sou. & Fla. 2d Pref.....	100	82	82
Maryland & Pennsylvania.....	100	27	30
Seaboard Company Common.....	100	30¾	32
Seaboard Company 1st Pref.....	100	89	91
Seaboard Company 2d Pref.....	100	60¼	61
United Railways & Elec. Co.....	90	16	16½

Bank Stocks.	Par.	Bid.	Asked.
Citizens' National Bank.....	10	28	29
Commercial & Far. Nat. Bank.....	100	130	130
Com. & Far. Nat. Bk. Blue Cfs.....	100	140	160
Drovers & Mech. Nat. Bank.....	100	220	230
Farmers & Mer. Nat. Bank.....	40	50	51
German-American Bank.....	100	105	106
German Bank.....	100	109½	111
Maryland National Bank.....	20	20	24
National Bank of Baltimore.....	100	117½	118
National Marine Bank.....	30	37	38
National Mechanics' Bank.....	10	25	26
National Union Bank of Md.....	100	120	120
Old Town Bank.....	30	11	11½

Trust, Fidelity and Casualty Stocks.	Par.	Bid.	Asked.
Continental Trust.....	100	190	195
Maryland Trust.....	100	112	112
Mercantile Trust & Deposit.....	50	142	145
U. S. Fidelity & Guaranty.....	100	124	125½

Miscellaneous Stocks.

Ala. Con. Coal & Iron Pref.....	100	91	111
Consolidated Cotton Duck Com. 50	12½	13	13
Consolidated Cotton Duck Pfd. 50	33	34	34
Consolidated Gas (S. C.).....	100	8½	95
Consolidation Coal.....	100	89	89
G. B. & S. Brewing Co.....	100	10½	11
George's Creek Coal.....	100	70	80

Railroad Bonds.

Atlan. Coast Line 1st Con. 4s, 1902.	99½	100	100
Atlantic Coast Line 4s, Cfs., 1902.	90½	91	91
Carolina Central 4s, 1910.	97	97	97
Charleston & West. Car. 5s, 1916.	110½	111	111
Char. Col. & Aug. 2d 7s, 1910.	111	112	112
Coal & Iron Railway 5s, 1920.	106	106	106
Georgia, Car. & North. 1st 5s, 1929.	110	111	111
Georgia South. & Fla. 1st 5s, 1915.	112½	113	113
Maryland & Pennsylvania 4s, 1911.	94½	95	95
Petersburg, Class B 6s, 1926.	125	129	129
Potomac Valley 1st 5s, 1911.	115½	116	116
Richmond & Danville Gold 6s, 1915.	114½	115½	115½
Seaboard Air Line 4s, 1910.	87½	88	88
Seaboard Air Line 5s, 10-year, 1911.	101½	101½	101½
South Road 5s, 1911.	109½	110½	110½
Suffolk & Carolina 5s, 1911.	109	109	109
Virginia Midland 2d 6s, 1911.	109	109	109
Virginia Midland 4th 3-4-5s, 1921.	109½	109½	109½
Western Maryland new 4s, 1902.	86½	86½	86½
West. North Carolina Con. 6s, 1911.	114	114	114
West Virginia Central 1st 6s, 1911.	106	109	109

Street Railway Bonds.

Anacostia & Potomac 5s, 1919.	104½	104½	104½
Augusta Rwy. & Elec. 5s, 1910.	106	106	106
Central Ry. Con. 5s (Balt.), 1902.	114½	114½	114½
Charleston Con. Electric 5s, 1909.	95	95	95
City & Suburban 5s (Balt.), 1909.	113	113	113
City & Suburban 5s (Wash.), 1915.	105½	105½	105½
Lexington Railway 1st 5s, 1919.	103½	104	104
Macon Rwy. & L. 1st Con. 5s, 1903.	100	101	101
Norfolk Railway & Light 5s.	98½	99¼	99¼
Norfolk Street Railway 5s, 1914.	112	112	112
North Baltimore 5s, 1912.	120	120	120
United Railways 1st 4s, 1919.	92½	92½	92½
United Railways Inc. 4s, 1919.	74½	74½	74½

Miscellaneous Bonds.

Alabama Consol. Coal & Iron 5s.	90	92	92
Consolidated Gas 5s, 1910.	106½	107	107
Consolidated Gas 5s, 1909.	112	113	113
Consolidated Gas 4½s, Cfs., 1910.	98½	99	99
G. B. & S. Brewing 1st 3-4s.	63½	63½	63½
G. B. & S. Brewing 2d Incomes.	37½	38½	38½
Maryland Telephone 5s.	98	98	98
Mt. V. & Woodby's Cot. Duck 5s.	86	86½	86½

SOUTHERN COTTON-MILL STOCKS

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending May 26.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.).....	97	99
Aiken Mfg. Co. (S. C.).....	85	85
Anderson Cotton Mills (S. C.).....	104	106
Arkwright Mills (S. C.).....	120	123
Augusta Factory (Ga.).....	80	88
Avondale Mills (S. C.).....	96	96
Belton Mills (S. C.).....	109	110
Bibb Mfg. Co. (Ga.).....	122	122
Brandon Mills (S. C.).....	109	111
Cabarrus Cot. Mills (N. C.) new.	120	130
Chadwick Mfg. Co. (N. C.) Pfd.	102	102
Chiquola Mfg. Co. (S. C.).....	92½	93½
Clifton Mfg. Co. (S. C.).....	124	127
Clifton Mfg. Co. (S. C.) Pfd.	102	106
Clinton Cotton Mills (S. C.).....	135	145
Columbia Mfg. Co. (Ga.).....	96	96
Courtenay Mfg. Co. (S. C.).....	100	100
Dallas Mfg. Co. (Ala.).....	87	96
Darlington Mfg. Co. (S. C.).....	61	61
Eagle & Phenix Mills (Ga.).....	125	126
Easley Cotton Mills (S. C.).....	122	123
Enoree Mfg. Co. (S. C.).....	77	89
Enoree Mfg. Co. (S. C.) Pfd.	100	102
Enterprise Mfg. Co. (Ga.).....	96	92
Exposition Cotton Mills (Ga.).....	200	200
Gaffney Mfg. Co. (S. C.).....	89	92½
Gainesville Cotton Mills (Ga.).....	29	40
Granby Cot. Mills (S. C.) 1st Pfd.	59	66
Graniteville Mfg. Co. (S. C.).....	100	105
Greenwood Cotton Mills (S. C.).....	95	95
Grendel Mills (S. C.).....	110	115
Henrietta Mills (S. C.).....	300	300
King Mfg. Co., John P. (Ga.).....	97	103
Lancaster Cotton Mills (S. C.).....	102	106
Lancaster Cot. Mills (S. C.) Pfd.	97	97
Langley Mfg. Co. (S. C.).....	92	96
Laurens Cotton Mills (S. C.).....	170	170
Limestone Mills (S. C.).....	104	104
Lockhart Mills (S. C.).....	100	103
Lockhart Mills (S. C.) Pfd.	97	100
Louise Mills (N. C.) Pfd.	94	94
Louise Mills (N. C.) Pfd.	102	102
Marlboro Cotton Mills (S. C.).....	73	90
Mayo Mills (N. C.).....	165	185
Mills Mfg. Co. (S. C.).....	106	106
Mills Mfg. Co. (S. C.) Pfd.	100	100
Monaghan Mills (S. C.).....	104	104
Monarch Cotton Mills (S. C.).....	87	88½
Newberry Cotton Mills (S. C.).....	114	114
Norris Cotton Mills (S. C.).....	107	110
Odell Mfg. Co. (N. C.).....	91	91
Orangeburg Mfg. Co. (S. C.) Pfd.	80	97
Orr Cotton Mills (S. C.).....	103	105
Pacolet Mfg. Co. (S. C.).....	179½	179½
Pacolet Mfg. Co. (S. C.) Pfd.	102	104
Pelzer Mfg. Co. (S. C.).....	169	173
Piedmont Mfg. Co. (S. C.).....	169	171
Poe Mfg. Co. (S. C.).....	125	129
Raleigh Cotton Mills (N. C.).....	89	104
Richland Cot. Mills (S. C.) Pfd.	51	56
Rosnoke Mills (N. C.).....	144	151
Saxon Mills (S. C.).....	100	104
Sibley Mfg. Co. (Ga.).....	64	68
Spartan Mills (S. C.).....	140	151
Spartan Cotton Mills (N. C.).....	80	80
Springstein Mills (S. C.).....	142	142
Trion Mfg. Co. (Ga.).....	131	142
Tucpau Mills (S. C.).....	160	165
Victor Mfg. Co. (S. C.).....	115	120
Warren Mfg. Co. (S. C.).....	97	99
Warren Mfg. Co. (S. C.) Pfd.	105	105
Washington Mills (Va.).....	18	28
Washington Mills (Va.) Pfd.	95	99
Whitney Mfg. Co. (S. C.).....	143	150
Wicassett Mills (N. C.).....	122	135
Woodruff Cotton Mills (S. C.).....	105	106½

Poor's Manual Appendix.

Poor's Railroad Manual, Appendix and Diary, including Poor's Ready Reference Bond List, has been issued in a special edition for February, 1906. It contains a large amount of information valuable to bankers and brokers, besides others who are interested in stocks and bonds. The bond list gives detailed information concerning various railroad bonds. The dates of annual meetings of steam railroads, street railways and miscellaneous industrial incorporations are also presented, besides the names of registrars of stock and the transfer agencies of all such corporations. Another department contains information concerning the dividends paid from 1898 to 1905, inclusive. Statistics of steam railroads and of street railways are likewise furnished. The book is well printed on good paper, and contains nearly 300 pages. It is bound in flexible cloth with gilt lettering. Poor's Railroad Manual Co., 68 William street, New York, is the publisher.

Manual of Statistics.

The Manual of Statistics or Stock Exchange Handbook of 1906 has been issued, this being the twenty-eighth year of its publication. As in the past, the book embodies concise but complete information concerning railroad and industrial corporations, besides quotations of securities in the various large cities and complete statistics regarding cotton and grain, together with a comprehensive bank directory. This book, which has more than 1050 pages, presents in convenient size a fund of information which is constantly consulted by all who are interested in the financial and commercial markets. It is thoroughly up to date, and is furnished with a convenient thumb index. The

Belton Mills (S. C.).....	108	110
Bibb Mfg. Co. (Ga.).....	106	106
Brandon Mills (S. C.).....	109	112
Brogan Mills (S. C.).....	77	80
Cabarrus Cotton Mills (N. C.).....	137	137
Chadwick Mfg. Co. (N. C.) Pfd.....	102	102
Chiquola Mfg. Co. (S. C.).....	92	100
Clifton Mfg. Co. (S. C.).....	122	128
Clifton Mfg. Co. (S. C.) Pfd.....	103	103
Clinton Cotton Mills (S. C.).....	140	145
Columbus Mfg. Co. (Ga.).....	94	97
Courtenay Mfg. Co. (S. C.).....	100	103
Dallas Mfg. Co. (S. C.).....	59	96
Darlington Mfg. Co. (S. C.).....	69	68
D. E. Converse Co. (S. C.).....	115	115
Eagle & Phenix Mills (Ga.).....	120	120
Easley Cotton Mills (S. C.).....	120	125
Enoree Mfg. Co. (S. C.).....	85	90
Enoree Mfg. Co. (S. C.) Pfd.....	100	103
Enterprise Mfg. Co. (Ga.).....	82	90
Exposition Cotton Mills (Ga.).....	174	200
Gaffney Mfg. Co. (S. C.).....	85	92
Gainesville Cotton Mills (Ga.).....	28	28
Glenwood Cotton Mills (S. C.).....	102	105
Gluck Mills (S. C.).....	92	97
Granby Cot. Mills (S. C.) 1st Pfd.....	80	80
Graniteville Mfg. Co. (S. C.).....	157	157
Greenwood Cotton Mills (S. C.).....	95	96
Grendel Mills (S. C.).....	115	115
Hartsville Cotton Mill (S. C.).....	92	92
Henrietta Mills (N. C.).....	200	200
Inman Mills (S. C.).....	94	97
King Mfg. Co., J. P. (Ga.).....	97	103
Lancaster Cotton Mills (S. C.).....	100	106
Lancaster Cot. Mills (S. C.) Pfd.....	95	99
Langley Mfg. Co. (S. C.).....	92	96
Laurens Mills (S. C.).....	172	172
Limestone Mills (S. C.).....	104	104
Lockhart Mills (S. C.).....	90	104
Lockhart Mills (S. C.) Pfd.....	101	101
Loray Cotton Mills (N. C.) Pfd.....	85	90
Louise Mills (N. C.).....	94	94
Louise Mills (N. C.) Pfd.....	102	102
Marlboro Cotton Mills (S. C.).....	67	75
Mayo Mills (N. C.).....	150	200
Mills Mfg. Co. (S. C.).....	100	100
Mills Mfg. Co. (S. C.) Pfd.....	99	101
Molloy Mfg. Co. (S. C.).....	99	95
Monaghan Mills (S. C.).....	99	104
Monarch Cotton Mills (S. C.).....	84	89
Newberry Cotton Mills (S. C.).....	115	115
Ninety-Six Cotton Mills (S. C.).....	92	97
Norris Cotton Mills (S. C.).....	106	106
Odell Mfg. Co. (N. C.).....	90	90
Orangeburg Mfg. Co. (S. C.) Pfd.....	80	90
Orr Cotton Mills (S. C.).....	101	106
Pacolet Mfg. Co. (S. C.).....	180	180
Pacolet Mfg. Co. (S. C.) Pfd.....	102	104
Pelzer Mfg. Co. (S. C.).....	170	173
Piedmont Mfg. Co. (S. C.).....	170	175
Poe Mfg. Co., F. W. (S. C.).....	125	130
Raleigh Cotton Mills (N. C.).....	105	100
Ridgely Cotton Mills (S. C.) Pfd.....	50	50
Ronoke Mills (S. C.).....	118	118
Saxon Mills (S. C.).....	102	104
Sibley Mfg. Co. (Ga.).....	58	63
Southern Cotton Mills (N. C.).....	80	80
Spartan Mills (S. C.).....	145	150
Springsteen Mills (S. C.).....	105	100
Trion Mfg. Co. (Ga.).....	132	140
Tuconpa Mills (S. C.).....	159	159
Tipton Mfg. Co. (S. C.).....	115	115
Wagon Mfg. Co. (S. C.).....	96	100
Warren Mfg. Co. (S. C.) Pfd.....	17	22
Washington Mills (Va.).....	17	22
Washington Mills (Va.) Pfd.....	93	96
Whitney Mfg. Co. (S. C.).....	145	145
Wicliams Mills (N. C.).....	119	125
Woodruff Cotton Mills (S. C.).....	107	117

press work and the paper are both good, and the binding, of green cloth with gilt lettering, is neat and substantial. The Manual of Statistics Co., 25 West Broadway, New York, is the publisher.

Bankers' Conventions.

At the annual meeting of the Oklahoma and Indian Territory Bankers' Association, held at Oklahoma City May 21 and 22, the following officers were elected for the ensuing year: N. T. Gilbert of Madill, I. T., president; E. P. Blake of Blackwell, Okla., first vice-president; D. N. Fink of Muskogee, second vice-president; C. L. Engle of El Reno, secretary; P. A. Janeway of Mangum, treasurer.

The Alabama State Bankers' Association held its annual meeting at Anniston, Ala., May 21 and 22. The following officers were elected: Col. W. H. McKleroy, Anniston, president; E. J. Buck, Mobile, vice-president; McLale Tilson, Pell City, secretary and treasurer; executive council and vice-presidents from groups—Group 1, J. R. Boyd, Huntsville; Group 2, J. H. Hicks, Talladega; Group 3, R. F. Smith, Bessemer; Group 4, E. C. Melvin, Selma; Group 5, J. P. Foy, Eufaula.

Growth of Atlanta.

The Lowry National Bank of Atlanta, Ga., has issued a tastefully-printed folder titled "Something About Atlanta's Growth in Ten Years." It shows that in 1895 the total bank clearings in Atlanta were \$65,318,000 and in 1905 they were \$185,625,000, the increase in 10 years being \$120,307,000. During the same period the total deposits in the Atlanta banks rose from something more than \$7,000,000 to very nearly \$21,000,000, a gain of nearly \$14,000,000. The Lowry National Bank has a capital of \$500,000 and surplus and profits of \$546,102. Robert J. Lowry is president; Thomas D. Mendor, vice-president; Joseph T. Orme, cashier, and Henry W. Davis, assistant cashier.

Bids will be received at the office of the judges of the Circuit Court for Harford county in Bel Air, Md., at noon June 18 for \$25,000 of 5 per cent. Harford county bonds. George L. Van Bibber is chairman of the Bel Air courthouse building committee. Further particulars will be found in the advertising columns.

New Corporations.

Mr. Jeff D. Green of Caneyville, Ky., is reported to be considering a plan to establish a bank at McDaniels, Ky.

Local citizens are reported to be organizing a \$10,000 bank at Dyer, Ark.

The First Bank of Pettigrew, Ark., has elected C. F. Bretz, president, and C. O. Drake, cashier.

The City Bank & Trust Co. of New Orleans, La., has opened for business in the Morris Building. M. J. Sanders is president.

The People's Bank has been organized at Ramberg, S. C., with \$25,000 capital. H. C. Folk is president, and W. P. Riley, cashier.

The Vandone Investment Co. of St. Louis, Mo., capital \$150,000, has been incorporated by James D. Halter, C. P. McIntyre and B. L. Walker.

The Bank of Dover at Dover, O. T., has been chartered with \$10,000 capital. The incorporators are Link Barr, M. A. Mitchell and C. D. Mauk.

The First State Bank of Stratford, Texas, has been organized with \$10,000 capital. The incorporators are W. H. Fuga, Chas. E. Lowndez and others.

The German-American Savings Bank & Trust Co. of New Orleans, La., is reported to be open for business at 622 Canal street. Mr. Herman Kahle is cashier.

Articles of incorporation for the Jones Investment Co. of Dallas, Texas, capital

\$30,000, have been filed by John T. Jones, J. D. Harris and Charles A. Rasbury.

The Bank of Wilmer is reported organized at Wilmer, Ala., with \$25,000 capital. The officers are George M. Luce, president; L. V. Pringle, vice-president.

The Baltimore Investment Co. has been incorporated at Baltimore, Md., with \$1000 capital by Geo. Kremer, Rosina W. Keene, John P. J. McNulty, Henry Hecheimer.

A new State bank has been incorporated at Millersburg, Ky., with \$25,000 capital. The officers are Dr. W. M. Miller, president, and W. F. Shanklin, vice-president.

The Bank of Ninety-Six at Ninety-Six, S. C., has been granted a commission; capital \$50,000. The corporators are W. B. Anderson, R. S. Nickles, Jas. C. Self and others.

The Rice State Bank at Pineville, Ky., has begun business with \$15,000 capital. The officers are John L. Saylor, president; U. S. Howard, vice-president, and J. R. Rice, cashier.

The National Bank of West, Texas, capital \$25,000, has been organized with the following officers: W. R. Glasgow, president; J. P. Glenn, vice-president; C. W. Hollaway, cashier.

The Fairfax Loan & Investment Co. of Fairfax, O. T., capital \$10,000, has been granted a charter. The incorporators are Homer Huffaker, Charles W. Hoggatt, Raymond Hoss and Louis A. Wismeyer.

The Bank of Dinwiddie of McKenny, Va., capital \$10,000 to \$50,000, has been granted a charter. E. C. Powell is president; John R. Doyle, vice-president; J. H. Ligon, cashier, and J. R. Beck, assistant cashier.

The Bank of Hiawasse, recently organized at Charleston, Tenn., has been incorporated by J. M. Hanbright, W. J. Eldridge, J. H. Epperson, Y. M. McKnight, J. C. Palmer, J. C. Maddux and C. L. Palmer.

The Edisto Building and Loan Association of Orangeburg, S. C., has been granted a charter. The officers are D. O. Herbert, president; R. H. Jennings, vice-president; W. L. Glover, secretary and treasurer.

Articles of incorporation for the Rowe State Bank of Rowe, Texas, capital \$10,000, have been filed by W. A. Kinslow, W. E. Reeves, J. T. Adamson, Nat Smith, S. S. Montgomery, S. B. Daniel and Charles Phillips.

The Citizens' National Bank of Brownwood, Texas, recently approved, capital \$100,000, has been organized with the following officers: Dr. J. A. Abney, president, and A. L. Self, vice-president; Fred S. Abney, assistant cashier.

The Beaumont Building and Loan Association has been incorporated at Beaumont, Texas, with \$150,000 capital by Guy W. Junker, A. L. Williams, S. G. Burnett, R. M. Mothner, Leon R. Levy, James Wellman and others.

The People's Bank of Oliver, Ga., is reported organized by L. O. Benton of Monticello, and application is to be made for a charter. Among those interested are J. J. Tullis, R. B. Griffin, W. J. Quantock, H. E. Ezell and J. A. Kennedy.

The Citizens' Bank of Follansbee, W. Va., recently incorporated with \$25,000 capital, has elected the following officers: President, H. C. Myers, Wellsburg; vice-president, H. B. Mahan of Follansbee; cashier, G. B. Crawford of Steubenville.

The Stonewall Insurance Co. of Farmville, Va., has been incorporated with \$50,000 capital by W. G. Dunnington, president; Walter H. Robertson, general manager, secretary and treasurer; Tucker C. Johnson, vice-president, all of Farmville, Va.

The Farmers' Banking Co. of Union, W. Va., has been incorporated with \$25,000 capital by A. E. Johnson, Fort Spring;

J. W. Johnson, Alderson; A. C. Houston, Union; S. S. Steele, Pickaway; L. B. Dunn, Lindside; S. Y. Simms, Karn, and H. B. Dunn of Cashmere.

The new bank at Palmersville, Tenn., has completed its organization by electing the following officers: Dr. Copeland, president; G. T. Mayo, vice-president, and W. T. Killebrew, cashier; directors, W. T. Rawls, U. Pentecost, J. M. Buckley, T. H. Miller, J. K. Eaves, W. A. Hodges and J. S. Tyson.

The Columbian Realty & Loan Co. of Macon, Ga., has elected the following officers: President, Joseph Bloch; cashier, Edward A. Horne; directors, Edwin W. Gould, G. Bernd, Jr., Edward A. Horne, Joseph Bloch, Henry M. Sours, D. G. Hughes, Jr., Clarence P. Bush, attorney, and Malcolm D. Jones.

The Dime Savings Bank of Cumberland, Md., has begun business with the following officers: President, D. Lindley Sloan; vice-president, A. M. Lichtenstein; cashier, Arthur Warfield. The directors, besides Messrs. Sloan and Lichtenstein, are Geo. E. Deneen, John S. McCauley, Perry Warfield, George G. Young, Thomas B. Finan, David A. Robb and Dr. Thomas W. Koon.

The First State Bank of Terrell, Texas, capital \$100,000, is to begin business June 2 with the following officers: Dr. J. S. Turner, president; J. S. Grinnan, first vice-president; O. F. Walton, second vice-president; L. E. Griffith, Jr., cashier; E. H. Archer, assistant cashier; directors, Dr. J. S. Turner, Major J. S. Grinnan, O. F. Walton, L. E. Griffith, Jr., W. A. Brooks, F. M. Barton, J. C. Fields, W. O. Siler and Dr. W. H. Neely.

The Bank of Labadie is reported organized at Labadieville, La., with \$20,000 capital, the directors being Robert C. Martin, Sr., Thomas Beary, Edgard Aucoin, Theophile Boudreaux, Paul Francioni, Ernest Roger, Jr., Theodule Bourg, Oscar Talbot, Albert Blanchard, Rene Gros, C. C. Barton, Leon Seignouret, George Menuet, Walter Godchaux, John Marks, H. C. Dansereaux, T. X. Landry, Robert Elfert, A. S. Dolese and Eugene Constantin.

New Securities.

Amherst, Va.—It is reported that an election is to be held in Amherst county to vote on the question of issuing \$80,000 of road bonds.

Annapolis, Md.—Bids will be received by the county commissioners until 11 A. M. June 12 for all or any part of \$250,000 of 4 per cent. 5-50-year Anne Arundel county bonds. W. W. Webb is clerk.

Bel Air, Md.—Bids will be received at the office of the Harford County Circuit Court until noon June 18 for \$25,000 of Harford county bonds.

Boynton, I. T.—An election is to be held June 12 to vote on the question of issuing \$10,000 of schoolhouse bonds.

Carlton, Texas.—An election will soon be held, it is reported, to vote on the question of issuing \$3000 or \$4000 of school bonds.

Carnesville, Ga.—On June 9 an election is to be held to vote on the question of issuing \$50,000 of 4½ per cent. Franklin county courthouse bonds.

Chicago, Texas.—The State Board of Education has purchased for the permanent school fund the \$5000 of 5 per cent. Dawson county courthouse bonds.

Claremore, I. T.—An election will soon be held to decide the question of issuing water-works and electric-light bonds.

Cleburne, Texas.—The attorney-general has been asked by the city to approve an issue of paving bonds.

Clinton, S. C.—The \$25,000 of electric-light and water-plant bonds have been purchased by the Security Trust Co. of Spartanburg, S. C.

Colorado City, Texas.—The \$15,000 of 5 per cent. 20-year schoolhouse bonds have

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been purchased by the State Board of Education.

Columbus, Ga.—The Columbus Realty & Improvement Co. is reported to have filed a mortgage with the Trust Company of Georgia, at Atlanta, to secure an issue of \$100,000 of 20-year bonds.

Columbus, Ga.—A committee has been appointed to ask the city council to call an election to vote on the question of issuing \$10,000 of school bonds.

Conway, S. C.—Bids will be received by J. C. Spivey, secretary, until 2 P. M. June 15 for \$40,000 of 5 per cent. 20-year Horry county bonds.

Cowpens, S. C.—The Security Trust Co. of Spartanburg has purchased \$6000 of school bonds.

Crossville, Tenn.—The Southern Contracting & Development Co., 41-43 Wall street, New York, is offering for sale \$1,000,000 of 5 per cent. 30-year bonds of the East Tennessee Coal & Lumber Co.

Dallas, Ga.—The city recently voted to issue \$20,000 of water-works bonds.

[For Additional Financial News, See Page 36.]

